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An Ocean of Plastic

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Abstract

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The issue surrounding plastic in the ocean has recently been put on the agenda by the newspapers around the world. More and more articles are being published about the topic, consequently giving more information to the general public about the issue. However, this same issue has mostly been overlooked by the field of criminology. To fill that gap, the consequential aim of this thesis is to explore the issue of plastic in the oceans from a criminological perspective. The overarching research question is how the representations made by Norwegian newspapers of plastic in the ocean have changed during the past 4 years, and what social repercussions such change has had.

I utilise a document analysis as the main research method, analysing all articles published about the issue by three different newspapers – VG, NRK and Dagbladet – between January 2015 and August 2018. In total, I include a database of 405 articles from the given time period. The findings show that the representation of the issue of plastic in the ocean made by Norwegian newspapers changed in early 2017, a moment after which they started focusing more on this as a topic of public concern. The themes of how plastic affect marine animals, the politics surrounding plastic use (such as initiatives to apply taxes/bans), and the dynamics of plastic emission have been the focus of attention after the turning point.

I discuss my findings in the light of diverse theories and notions: a media analysis shows the importance of media in conveying information about an issue and in affecting the perceptions of the public. The application of three green criminological concepts: the treadmill of crime, speciesism and north-south divides, shows that capitalist structures dictates how we are spending our limited resources whilst harming our oceans and its inhabitants; how marine

animals are seen as inherently different to us due to the difference in the environment they live in and their appearance (which facilitates engaging with harmful behaviour); and that north-south divides fuels the transference of harm from the global north to the global south.

I conclude that there are much too do to combat the issue of plastic in the ocean. I recommend three possible solutions for the future: (1) viewing harm towards animals the same as towards humans; (2) implementing effective laws and regulations; and (3) more attention from the field of criminology. I have tried to bring the issue of plastic in the ocean into a criminological light hoping that it will be the beginning of more, and hopefully larger studies.

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Oslo, May 2019
Ingrid Masovn Haave

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1 Introduction

The issue surrounding plastic in the ocean has recently been put on the agenda by the newspapers around the world. Very frequently, a new article about the topic is written and published. However, few of these are from a criminological perspective. Even though the issue of plastic in the ocean has existed for several decades, it has mostly been overlooked by criminology. In this introduction I will first explain why I have chosen this topic. Second, I will present the research question and research aims. Third, I will present a brief overview of previous research and explain how this project can contribute to green criminology. Fourth, I will place the project theoretically. Fifth, I will look at the scope of the issue. Last, I will present the structure of the thesis.

1.1 Background

As recently as 2017 the United Nations [UN] published an article about the six biggest environmental threats with global implications. These problems are related to antimicrobial resistance, nanomaterials, sand and sandstorms, solar solutions, environmental displacement, and lastly marine protected areas (UNEP, 2017a).

The sixth problem presented by the UN —marine protected areas— is the field on which takes place on the issue I study in this thesis. In 2017, only 14.4 percent of the world's coast and marine areas were protected by national jurisdictions. Marine areas have for a long time been subjected to a complex mixture of environmental, social and economic pressures; this includes amongst other things overfishing, pollution, tourism and climate change. 50% of the coral reefs in the world have disappeared, and 31% of fish stocks are overfished which will consequently result in species going extinct (UNEP, 2017a). Plastic in the ocean is one of the causes of endangerment and probable extinction of marine species: this is the material that is most often reported getting in touch with fish, seabird, reptiles and mammals in the ocean. Plastic is found in all the world's marine ecosystems. Marine ecosystems are constantly taking damage from plastic and microplastic, for example from the food they eat or from "plastic traps". Marine life is not able to distinguish between plastic and food, and therefore consume plastic pieces and consequently also microplastic. Indirectly, plastic and pollution also destroy their habitats and render them unliveable forcing them to live a constant life on the move (Doherty & Ridgeon, 2017). Certain animals, as the North Atlantic right whale, are on the verge of going extinct partially due to the issue of plastic (UNEP, 2014).

Marine life is affected to a huge extent by human actions. Pollution and littering are a massive problem for the marine life. Pollution is producing the melting of the poles and the changing of the temperature of the oceans across the globe. Recently, plastic arose on the news agenda as an enormous problem (Doherty & Ridgeon, 2017). The fact that the UN placed the endangerment of the oceans beside the displacement and possible deaths of millions of humans, emphasises the importance of the issue at hand. I further add that our oceans and their inhabitants are facing just as big an issue with plastic in the ocean and pollution as we humans do. Therefore, this issue should be met with the same expectations of justice and preventive behaviour as some of the issues affecting humans do.

The issue of plastic in the ocean asides from interesting and important, is also a topic so far overlooked within criminology. Whereas several concepts and theories have been coined within the field of green criminology, these have been mainly used to analyse issues affecting animals and ecosystems out of the water, whilst the problems in the water have been partly neglected. I therefore bring this issue to the criminological agenda to contribute to the growing of a line of research not yet developed.

1.2 Research question and aims

Plastic in the ocean is a huge and complex issue with many perspectives and problems to further inspect. It would be impossible to research all the possible viewpoints whilst giving a full analysis of all of them. Even though all the possible viewpoints are interesting and important in their own way, by narrowing down the project, both the writer and the reader gain a deeper understanding of the focus of the project and the overarching issue. Therefore, I chose as main research question:

How have the representations of plastic in the ocean in the Norwegian newspapers changed in the past 4 years?

The way the media represents an issue can often be an indicator of what a portion of a population thinks and feels about it. A professional journalist can decide what the public read, see and hear about the world. However, the process of captivating readers is multidimensional; while the audience can push the media in a certain direction, the media also shapes the ways

in which a society perceives reality. The media have a substantial role in creating and shaping beliefs and fears in the public (Weitzer & Kubrin, 2004; Pavlik, 1999)

The media can create attention and interest around an issue, which may lead to increased awareness in the population, which at its time, may lead to more being done to find a solution to the problem. The representation of plastic in the media may therefore indirectly affect the efforts (or lack thereof) to solve the issue, thereby being an important issue to study when trying to understand the factors that facilitate or prevent environmental harm (Weitzer & Kubrin, 2004).

The environmental harm I focus on in this thesis is the issue of plastic in the ocean. The issue of plastic in the ocean is a problem that affects the whole world. The plastic pollution from a country anywhere in the world has the possibility to travel with the ocean currents and end up on the Norwegian coastline and vice versa. Even though Norway is a small country both in size and population compared to the rest of the world, the actions Norway take against plastic pollution have the potential to affect the whole world (I will explore the scope of the issue of plastic pollution further in chapter 1.5). As White (2012) states: "what happens at the local level has consequences for those on the other side of the planet. What happens in any one place is thus intrinsically important to what happens worldwide" (p. 20). The laws and regulations Norway implement as well as other actions, can therefore reduce the harm of plastic oceans throughout the world. In this project I focus on the way Norwegian newspapers have represented the issue of plastic in the ocean during the past 4 years, and the legislative outcomes this has had in Norway.

I will only look at harm done by plastic pollution, and not any other type of pollution. Even though plastic in the ocean has implications for all living beings over the globe, I will only focus on Norway. I will neither look at animals or birds living out of the water. Some of these animals and birds may still be affected by the plastic pollution in the ocean due to their habitats being close to the water or through their main food source being the ocean; however, they may be affected differently than the marine life living in the water and I will therefore not include them in this project.

To accomplish the overarching goal, I further divide the research as follows:

- How is plastic represented in the Norwegian media nowadays?
- How was plastic represented in the media 4 years ago?
- When and why did a transformation happen?
- What legislative repercussions has seemingly the transformation had on the way in which Norwegian newspapers represent the issue of plastic in the ocean?

1.3 Previous research and the contribution of the project

Criminology has not prioritised research on the issue of plastic in the ocean. Therefore, there is not much research on this topic. The research that does exist focuses mostly on the oceans and water in itself, and how the lack of water may lead to exploitation and commodification. If plastic is at all mentioned, it is often under a subheading or in a subordinate clause (see Brisman & South, 2017; South & Brisman, 2013; Johnson, South & Walters, 2016; South, 2014). Due to the lack of research on the issue of plastic in the ocean, it is important to research the issue further. More knowledge about the dynamics leading to it, and its consequences may increase awareness amongst the general population and lead to a discussion on ethical questions. Prevention of the issue worsening, and a clean-up of the current problem may also be positive consequences of heightened awareness around the issue. This project may therefore contribute to a little researched field within criminology, thus filling a knowledge gap and paving the way for future projects.

Newspapers and social media however have several stories about animals being hurt and harmed by plastic. On social media platforms, this kind of pictures, videos and articles are often 'shared' several thousand times and generate a lot of interest for the poster. In Canada, a deformed fish was found with a plastic ring around its stomach (Turnbull, 2017). A hobby fisherman from Norland in Norway caught a cod in his yarn. The fish looked sick and had a huge lump on his stomach; after seeing this, the fisherman decided to cut the fish's stomach open. Inside its stomach, he found a plastic bottle (Hoff & Lysvold, 2017). On a beach outside of Bergen in Norway a Cuvier's beaked whale was found with its stomach filled with plastic (Husebø-Evensen, 2017). On the coast in the south of Spain a sperm whale was found dead after having eaten 29 kilos of plastic waste (Strange, 2018). In a zoological garden in Australia one of their loggerhead sea turtles was sent to the veterinarian after plastic waste was found in its faeces (Cox, 2018).

1.4 Theoretical placement

The theoretical placement for the project is cultural green criminology and media criminology. The first published use of the term 'green criminology' was by Lynch in 1990 (Lynch, 1990) and it has since been a widely used term about issues related to the environment. However, the term 'green criminology' did not appear out of thin air. Articles, ideas and notions relevant to green criminology appeared before Lynch's published use of the term in 1990. Before this, environmental issues were not unknown to criminology though not widely taken up either. As early as the 1970s environmental issues were written about from a criminological perspective. However, there are criminological articles about environmental problems preceding this period that have never been widely read due to language barriers or a western focus (Goyes & South, 2017).

Which actions fall under green criminology is hard to define. While orthodox criminology is concerned with actions defined by law as criminal, there are also actions that do massive damage to the environment that are not officially defined as a crime. It is therefore useful to look at both legal and illegal actions which cause damage and harm to the environment as a part of green criminology. It is also usual to utilise wider definitions of harm than what is included in laws, regulations and legislations. This is particularly visible for those critical criminologists researching animals and nature from a green criminological perspective, who emphasise actions and systems that are legal, but also lead to damage and harm for those involved (see Berry, 2012; Lynch & Stretesky, 2014; Sollund, 2011; Beirne, 1999; Cazaux, 1999; Larsen, 2013). I will therefore not distinguish between the assumed legality or illegality of the actions which led plastic to end up in the ocean. The marine life and the ocean do not distinguish between this; the harm will still be the same no matter the legality of the action.

Green cultural criminology is the 'merging' of the field cultural criminology and the thoughts of green criminology. Green cultural criminology may be referred to as the study of meaning, significance and representation the media constructs and depicts of environmental harms and threats. Media, however, is not the only one with the power to shape representations. Society is also able to do so, but the media has more power than the rest of society in shaping representations (Brisman & South, 2014). As I am looking at how media depicts plastic in the ocean my research fits with the goals of green cultural criminology. Devoting more consideration into how news media and popular culture construct and represent environmental crime,

harm and disaster may help green criminologists understand some of the factors shaping human action toward nature (Brisman & South, 2014).

Cultural criminology, one of the pillars of green cultural criminology, has several key features, including contestation of space, the construction and representation of crime, and constructed consumerism. Including these notions into a green criminology perspective are beneficial for both cultural and green criminology, the result being a green cultural criminology. Green criminology has to a large part focused its attention on locating and describing environmental crimes and harms and the corporate organisations most responsible for the damage. Cultural criminology on the other hand, looks at resistance in forms of social movements among the public and based on that information forms models on how to proceed (Brisman & South, 2013).

Cultural criminology also looks at how media's representation of crime affects both the individual and the collective behaviour, and on the media's ability to control emotions. Green cultural criminology is also interested in the media's filtering process by which it avoids reporting on certain environmentally damaging events. This line of research asserts that the coverage of environmental issues has been selective in what issues have been paid attention to. Often, the environmental issues with the highest immediate risks has been the focus; but the media tends to underestimate long-term environmental issues as climate change and pollution, while 'short-term' environmental issues like natural disasters are overestimated, all of which results in a misrepresentation of various environmental issues. Given the increasing role of mass media in shaping attitudes and behaviours among the public, green criminology greatly benefits from using the tools developed by cultural criminology, and looking at why, which and in what ways environmental issues are represented in the media and the dynamics by which they become relevant and influential or not (Brisman & South, 2013).

Green cultural criminology is also interested in constructed consumerism, and how consumers create conditions that lead to harm to others, creating a new market, and remaking the world with implications of environmental harm and disaster. The case of bottled water is a case of combining constructed consumerism and green criminology. Bottled water is often seen as purer, healthier and safer than tap water, though the opposite is more often true. Bottled water is often stored for longer periods of time and may come from contaminated sources, while tap water is a fresh, running supply. Creating the illusion that bottled water is cleaner and safer

than tap water creates a new market for the consumers. However, the implications for the human beings in need and the environment is huge. Too many people lack access to clean drinking water, and the privatisation of water lead the economically poor to "choose" between paying for water they cannot afford or have no water. There are also implications for the environment, as the energy used to manufacture and dispose of the plastic bottles as well as the kilometres it takes to transport the bottles around the world adds up to a huge energy toll. Further, it takes three litres of water to produce one litre of bottled water, and the transport emits millions of tons of carbon dioxide emissions every year, clearly showing that bottled water is neither environmentally friendly nor ethical (Brisman & South, 2013). Relevant for this project, the constructed consumerism of bottled water contributes to the issue of plastic in the oceans.

Also useful for my project is the field of Media Criminology, which looks at the way news about crime are reported and circulated as well as the way the news is gathered and reported. The latest developments in this field incorporate the acknowledgment that social media and the internet have made everyday crime more accessible, immediate and visual. Representatives of this research direction indicate that to grab the public's attention, news and stories must contain high level of sensationalism. The standard for what is seen as sensational has been increased considerably over the last few years (Jewkes, 2015).

1.5 The scope of the issue

The issue of plastic in the ocean is a worldwide problem affecting everyone on both a local and a global level. From this viewpoint, there are not two different perspectives; there is only one perspective involving both local and transnational elements. One could further call this viewpoint a 'glocal' perspective; 'glocal' being a term merging the terms 'global' and 'local', thus seeing the local issues on a global scale. Local actions have the power to directly and indirectly affect the global world (Hobbs & Dunnighan, 2002; White, 2012; Aas, 2013).

Expanding further on the 'glocal' viewpoint, we can see that litter from one part of the world may end up in another part of the world, for example through the ocean currents. There is one global ocean covering about 70% of the world. Following the currents in the ocean, waste from the US may end up in India and the other way around (Ocean Blue Project, 2018). The actions we do in our daily life on a local level may end up affecting other people, nonhuman animals and flora all around the globe making this a global problem. Small actions we do in

our day to day life to reduce littering therefore also affect others globally. The issue of plastic in the ocean is created by an infinity of local actions that together become a global problem, truly making this a 'glocal' issue.

Plastic in the world's oceans are a worldwide transmission of harm; even though the harm on the environment happens in one area, the whole world is affected and will feel the consequences. Independent of the legality of the action, arrangements must be made to prevent further harms created by the issue (White, 2010). Despite the global scope of the issue of plastic in the oceans, I decided to focus on a study of Norway to gain a deeper understanding of a segment of the social realities that shape the contribution this country's population make to worsening or curving the problem.

1.6 Structure of the thesis

In this first chapter I introduced the research project and its research aims, looked at the reasoning why I chose this topic, provided a short presentation of previous research and the contribution of the project, analysed the scope of the issue, and theoretically placed the research. In the second chapter I look at the context of the issue of plastic in the ocean. I first present the historical background of plastic and how plastic has simultaneously been seen both as a positive and a negative element. I also look at contributions from other research fields and the media. In the third chapter I review the criminological literature I also present the relevance of my contribution and explain the importance of my project. In the fourth chapter I explain the methodological aspect of the research. In the methods section, I explain why I have chosen the different newspapers and how I have analysed them. I also reflect around the ethical issues of the project. In the fifth chapter I look at the results from my analysis of the representation of plastic in the ocean in the Norwegian newspapers. I structured the results around my research aims in order to present a cohesive and interconnected chapter. I therefore first look at when a transformation happened. Second, I look at how plastic in the ocean is represented in the media nowadays. Third, I look at how plastic was represented in the media 4 years ago. Fourth, I look at why a transformation happened. And last, I look at the socio legal repercussion, or lack thereof. In the sixth chapter, the discussion, I first connect my results with my research question and research aims. Second, I discuss the power of the media from the theories of agenda setting and moral panics. Third, I discuss my findings under the light of the three main green criminological theories: (1) the theory of the 'treadmill of crime' which focuses on economic structures; (2) the notion of speciesism and different ways to look at spe-

ciesism; and (3) North-south divides and how the global north has been and is still taking advantage of southern countries. In chapter 7, conclusion, I look through my thesis and focus on what I did in chapter 6 and how my findings connect to the issue of plastic in the ocean. I also look to the future and present three possible solution for the issue: (1) viewing harm towards animals the same as towards humans; (2) implementing effective laws and regulations; and (3) increased attention from the field of criminology.

2 Context

Plastic has been around for a long time and has been seen in both a positive and a negative light. In 1862, Alexander Parkes made the first man-made piece of plastic and this event is generally seen as the birth of the plastic industry. Parkes first displayed the piece of plastic at the Great International Exhibition in London. The plastic piece was made of cellulose and he named the plastic piece 'parkesine' (Modjarrad, 2014). Parkes patented the material as a clothing waterproofer and was later awarded a bronze medal for his efforts (Painter & Coleman, 2008).

In 1907, 45 years later, Leo Bakeland developed the first synthetic fossil fuel-based plastic. He named the substance 'bakelite' (Crespy, Bozonnet & Meier, 2008). The creation of 'bakelite' was revolutionary especially for its heat resistant properties which made it essential in electric appliances, kitchenware, and mobile and radio casings (Cook & Slessor, 1998). In 1993 'bakelite' was given a National Historic Chemical Landmark as a recognition of its significance as the first synthetic plastic in the world (American Chemical Society, 1993).

Over the following years, the production of plastic skyrocketed. New appliances and uses were continuously invented, and during the second world war alone, the production of plastic quadrupled. In 1946, the first plastic museum opened in New York and was called the National Plastics Exhibition. Its goal was to showcase all the new products and uses for plastic that had been invented (Freinkel, 2011).

It was first in the early 1970s when the first reports of the negative sides of plastic were explored. Researchers had found plastic pellets on the seafloor and this led to more research being done on the possible effects of plastic on marine animals (Ryan, 2015). The same decade also introduced several 'litter awareness campaigns.' Their goal was to reduce littering and raise environmental awareness about water pollution and recycling (Wals & Benavot, 2017).

The Center for International Environmental Law [CIEL] published a four-part series in 2017 about the connections between plastic and fossil fuel. One of the articles focused on the plastic industry and the awareness on the issue of plastic in the ocean. The other articles focused on the role of fossil fuel in the production of plastic, the inflow of new means and investments in petrochemical facilities, and the economic reasons for the massive wave of new invest-

ments within infrastructure in plastic and petrochemistry (CIEL, 2017a; CIEL, 2017b; CIEL, 2017c; CIEL, 2017d).

During the twentieth century, researchers slowly began to notice the danger posed to marine environments and life by plastic. Early observers were especially worried about marine life being entangled in plastic waste. Before the 1950s, occurrences of entanglement were not usual. After the 1970s when the material used to create fishing gear was changed from biodegradable materials such as hemp and paper to plastic, the occurrences of marine animals getting entangled rose. In 1969 the first National Conference on waste packaging was held in the US and most of the presentations focused on plastic. Some proposed ending the production as the only viable solution, while others proposed recycling and reusability. This historical account shows that even though the problems created by plastic have been known for about 50 years, a solution has yet to be found (CIEL, 2017c).

In addition to researching marine animals, there were also studies conducted to determining the consequences of petroleum pollution; those studies indirectly considered the issue of plastic in the oceans. In 1973 the National Academy of Sciences hosted a workshop to study the effect petroleum on marine environments –the study also looked at the ocean surface and the significant amount of plastic debris. This study explored also microorganisms and toxins attached to petroleum particles, and contaminants attached to plastic. The study concluded that the toxic particles were ingested by marine animals and that the accumulating plastic in the ocean was severely hazardous. However, some of the studies in the workshop were funded or done by scientists from petroleum corporations, and their work portrayed plastic as a "desirable material" (CIEL, 2017c: 2). A 1973 study further claimed that "plastic litter is a very small proportion of all litter and causes no harm to the environment except as an eyesore" (in CIEL, 2017c: 3). The research done in the 1970s was therefore contradictory, as some of the studies had an ulterior motive.

In the 1980s public awareness rose and the issue of marine pollution was no longer deniable. In 1984 the first workshop on marine debris was hosted, though no representatives from the plastic industry were present. However, the Society for the Plastic Industry issued a statement saying that they were allocating more money to establish plastic recycling facilities and to produce degradable plastic. In 1989, at the second marine debris workshop, the plastic industry was represented. However, they claimed that they were only responsible for plastic pellets

and flakes and not the end product, which was out of their control. The increased public awareness also led to some plastic products, for example plastic bags, to be banned or taxed (CIEL, 2017c).

The increase in research and awareness about the negative sides of plastic led to the discovery of more negative effects. In 1997, the Great Pacific Garbage Patch was discovered by Charles Moore. This Patch is the world's largest collection of floating trash, situated in the great pacific between Hawaii and California. The patch consists of 1.8 trillion pieces of plastic weighting an estimated 80 000 tonnes. Fishing nets accounts for 46 percent of the trash in the Great Pacific Garbage Patch and can be extremely dangerous for animals. If animals get entangled in the fishing nets when they swim or collide into them, they do not have the possibility to free themselves from the net. It therefore often results in death for the marine life involved. (Parker, 2018).

In the 2000s scientists focused their research on the impact of plastic on the ocean and the marine animals. The general population also gained interest in the issue which also led the government to act. After a severe flood in Bangladesh in 2002, its government decided to ban plastic bags as the first country in the world. During the flood, they found plastic bags blocking the drains, therefore the flood became more destructive than it would have been (Onyanga-Omara, 2013). Several other countries have since introduced bans, restrictions or taxes on plastic bags. The reasons behind these measures are the harm plastic causes to animals and infrastructure, its non-biodegradable nature, and the cost-benefit logic that indicates that the substance used to manufacture plastic bags could, and should, be used for more important things, like body parts replacements, medical adhesives and medical stents (Riskey, 2017).

In 2014, the Netherlands became the first country to ban cosmetic microbeads. Later the same year, other countries such as Austria, Luxembourg, Sweden and Belgium followed. Microbeads was originally a medical breakthrough, used to treat cancer and help HIV research. However, microbeads also ended up being an environmental disaster. Microbeads are tiny pieces of plastic and are easily confused with microplastic. The main difference being that microbeads are manufactured as miniscule plastic spheres while microplastic is the breakdown of larger plastic pieces. An estimated 8 trillion microbeads make it out into the oceans every day from US households alone. Marine life has no possibility of differentiating mi-

crobeads and microplastic from their usual food, and therefore often end up consuming the substance which often proves fatal. Microplastic also has the ability to move throughout the food chain and so affect even more life (Temperton, 2016). An estimate of 5.25 trillion plastic particles with the combined weight of 268 940 tonnes are floating around in our oceans making the scale of the problem humongous (Eriksen et al., 2014).

Now, plastic waste (and other waste and litter) are regulated under a fragmented global legal framework (UNEP, 2017b). The legal framework has several different laws and regulations about the environment or the climate, but plastic and any other type of specific waste are often not mentioned by name. The United Nations Convention on the Law of the Sea [UNCLOS] is the legal framework current activities in the ocean and the sea must be carried out by. UNCLOS can be sorted into three categories: pollution oriented or related, biodiversity or species oriented, and chemicals and waste oriented. In the first category, pollution, UNCLOS is the only global framework that legally binds states and nations to their actions of pollution from land-based sources. In addition to UNCLOS, The International Convention for the Prevention of Pollution from Ships [MARPOL] regulates ship-based sources of pollution, and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 and the London Protocol 1996, seeks to reduce, prevent and control pollution of the ocean and the sea by man-made vessels and objects. However, the protocols have loopholes which make some acts of pollution permitted. Some of the legal frameworks also have low levels of state participation which reduces its usefulness significantly (UNEP, 2017b).

The second category, biodiversity and species, have frameworks that focus on conservation and are indirectly addressing plastic waste and microplastic in the ocean. The Convention on Biological Diversity [CBD] seeks to reduce pollution and waste biodiversity whilst promoting sustainability. Other frameworks are the United Nations Fish Stocks Agreement [UNFSA] that seeks to conserve and manage fish stocks both under national jurisdictions and beyond, and the Convention on the Conservation of Migratory Species of Wild Animals [CMS] which seeks to conserve migratory species and avoid species becoming endangered. States are also recommended to implement monitoring processes to evaluate the impact of pollution on the marine environment and migratory species. However, as these are only recommendations, they are not legally binding to follow and will not cause legal consequences if not followed (UNEP, 2017b).

The third category, chemicals and waste, have two main global frameworks: Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal [Basel Convention] and the Stockholm Convention on Persistent Organic Pollutants [Stockholm Convention]. The Basel Convention applies to transboundary movements and require states to take measures so that people involved in the management of hazardous waste take the necessary steps to prevent pollution and minimise the consequences for both humans and the environment. The Stockholm Convention requires states to restrict, prohibit and eliminate intentional production of harmful chemicals to protect human health and the environment. The Stockholm Convention only provides a limited regulation of the use of plastic and the production of plastic and extend to the disposal of waste. It is limited only to certain pollutants and certain plastics. The Basel Convention has a broader scope, as it addresses the management and the disposal. However, it is also limited to only some plastic types and pollutants (UNEP, 2017b).

The existing global and regional frameworks are fragmented and uneven and does not have the level of coordination and expansion required to successfully exist. More specific laws and regulations are required to combat the issue of plastic in the ocean successfully. Several states have not accepted the existing laws, are utilising loopholes and utilise that some of them are voluntary to follow. Due to this, several gaps have appeared: for example, an international regulation of liability and compensation for the damage done by marine waste, the lack of regional data and sources regarding plastic and microplastics and its associated environmental risks, ecological risks and health risks, and mismanagement of the waste and wastewater treatment (UNEP, 2017b).

Plastic debris has become one of the most serious issues our marine environment is facing today. Every year, large amounts of plastic debris enters the ocean and follow the ocean currents before the debris gathers in certain zones such as the Great Pacific Garbage Patch. In the water, the plastic floats freely and decompose into microplastic. Noriyoshi (2016), studied the direct and indirect impact of plastic on marine life. The accumulation of plastic in the ocean also causes degradation of habitats. With their normal habitats being gone, the marine life uses plastic debris as their new habitat. Plastic debris allow invasive species reach regions they are not native of. Plastic also brings new toxic pollutants to the ocean. The ocean currents further transport the pollutants all around the world threating the whole marine biota. These are everlasting serious problems that need to be tackled now (Noriyoshi, 2016): if we do not change our behaviour, the amount of plastic in the ocean could triple by 2050.

It is hard to say exactly how much plastic marine animals consume. Boerger et al. (2010) looked at how much plastic fish in the North pacific Central Gyre ingest. To answer the question, they collected fish and emptied their stomachs of plastic and counted, weighted and categorised the plastic they found in there. From a green criminological perspective, this methodology is quite unethical and should not been practiced (Goyes & Sollund, 2018). Their findings were that 35% of the fish in the study had consumed at least one piece of plastic. On average, 2.1 pieces of plastic was found in each fish's stomach (Boerger, Lattin, Moore & Moore, 2010).

A study by Savoca et al. (2017) looks at how the odour from plastic debris stimulate a behaviour response from the fish. Their study found that the odour from plastic debris induced the fish with a foraging response. Based on their findings, it may be suggested that plastic debris are chemically attractive to marine animals. The odour from the plastic may lure fish into high plastic density areas as they believe it to be food. The visual cues of plastic debris may also resemble their prey, which combined with the chemical cues could explain why marine animals repeatedly confuse plastic debris with food (Savoca, 2017).

Pollution in the form of microplastic is a major threat in particular to filter-feeding animals such as whale sharks and manta rays. As they eat and ingest thousands of litres of water daily to fill their stomach with plankton, they are at increased risk of exposure to microplastic. Ingestion of microplastic can damage their digestive system and block their absorption of nutrients. Over time, the accumulation of plastic in their system may also alter their biological processes, leading to transformed growth as well as reduced development and reproduction. For species like these that already have few offspring, reducing this number even further will eventually lead to their extinction (Germanov et al, 2018).

Filter-feeding animals are also at risk because of their habitats. Their normal habitats are mainly in the Coral Triangle, Bay of Bengal, Gulf of Mexico and the Mediterranean Sea. These waters are one of the most polluted waters putting their inhabitants at high risk of exposure. In a study Germanov et al. (2018) found that around the Baja California peninsula there was 0.7 plastic items per cubic meter of water. As this is an important feeding ground for the whale sharks, it was also found that that they may be ingesting 171 plastic pieces on a daily basis. In the Mediterranean Sea as well, fin whales are thought to be ingesting thousands of plastic particles every day (Germanov et al., 2018).

However, the use of plastic is not entirely negative. Plastic have a positive effect in the areas of medicine and technology. The disposal and usage of plastic is what is concerning, as plastic accumulates in landfills as well as in natural habitats which cause issues for the wildlife. Another problem is that our current usage of plastic is not sustainable. Around 4 percent of the oil production and a similar amount of energy is used to make plastic. Over a third of the production is used to make packaging items and other short-lived plastic appliances that are discarded moments after. Our fossil fuel reserves are declining while our capacity to dispose plastic in landfills are finite –these are clearly unsustainable practices. There are solutions to be implemented: reducing the use of materials, reducing littering and increasing recyclability. However, the most important point is that it takes all of us to make a change, both governments and the public must take part (Thompson, Moore, vom Saal & Swan, 2009).

An organisation contributing to the research on the issue of plastic in the ocean is the United Nations Environment Programme [UNEP]. UNEP mentions plastic debris in the ocean as an issue already in 2011. In their yearbook from 2011 they view plastic debris in the ocean as a major issue, and thus also call out for more research and information about the issue especially about the sources, the distribution, the fate and the impact of plastic in the marine environment. They suggest that research be conducted at a local and regional level as the causes and consequences could differ based on the level. However, what they mostly call out for is better waste management as reusable plastic, disposal infrastructure, improved recycling and behavioural changes. If plastic was treated as a valuable resource instead of a waste product, it may increase economic incentives for collection and reprocessing. Politic investment is also important as policies and laws are an important way of preventing marine litter. However, politics are largely affected by the general public making it very important for ordinary people to take care about the issue and do their best to pressure the government and politicians (UNEP, 2011).

In UNEP's yearbook from 2014 they again pay attention to the issue plastic in the ocean and the growing concern about microplastics. Every year massive amounts of plastic end up in the ocean due to amongst others tourism and insufficient waste management. The yearbook also highlights the possible impacts on human health due to the fish ingesting the plastic. As in the yearbook from 2011, in the yearbook from 2014 UNEP also calls for more research and information about the issue, but also for cooperation between nations and organisations as an

important step in combating the issue of plastic in the ocean (UNEP, 2014). With this research project I am contributing to the former call.

Building on the scientific insights I just described, news outlets and TV networks also opened their eyes to the issue of plastic in the ocean, contributing to an increased awareness and knowledge among the general population. In 2017, the British TV channel BBC aired a follow up series to their 'Blue Planet' series, called 'Blue Planet 2'. It is a nature documentary about marine life and with outstanding footage on the impact of plastic have on marine life. The series increased global concern about the topic (Gabbatiss, 2017). The eighth episode in the series looks at the effect of human activity on the ocean (Jackson, 2017).

Microplastic, plastic waste and pollution are highlighted as the biggest issues facing the life in the ocean and the ocean itself in the Blue Planet 2nd episode. During the episode the viewer gets an insight into several different situations where plastic and microplastic cause harm and death to different animals. Multiple animals are stuck in plastic bags and plastic waste; the animals stuck range from albatrosses to turtles to humpback whales. Some of the animals are able to get away, others receive help, whilst others are permanently scared, deformed or die. The episode shows a family of clown fish trying to settle down and find a safe home; they find a plastic bottle and try to use it as a home, but thankfully the bottle is too light, and they consequently must find a different place to live. Another example they show is a long-finned pilot whale who refuses to leave her dead born calf. The mother has consumed too much microplastic making her milk poisonous to the calf (Doherty & Ridgeon, 2017).

The Henderson Island was also a reason for a lot of concern for researchers and media outlets when it was first discovered to which extent humans had polluted the island. The case was mentioned by several media outlets, as 'The Guardian', 'BBC', 'The New York Times' and 'The Washington Post' (Hunt, 2017; Wang, 2017; Ramzy, 2017; Dunlop, 2017). The Henderson Island is often mentioned as one of the most polluted places on earth as well as the place with the greatest density of plastic waste. The island located in the south of the Pacific Ocean, is covered by 38 million pieces of plastic weighing around 17,6 tonnes. The island has always been uninhabited, and until recently it was thought isolated from all human harm and activity. However, the new discovery shows that this has not been the case. Animals were found living in and around plastic, using the poisonous plastic waste as homes (Hunt, 2017).

Plastic in the ocean has gained massive publicity recently also in Norway and has therefore been put on the agenda like never before. TV shows and documentaries are made about the issue, like ‘Planet Plast’ (NRK, 2018), ‘Planetpatruljen’ (NRK, 2016) and ‘Oceans – Mystery of the Missing Plastic’ (Pérazio, 2016). The publicity around the issue, even made the Earth Day Network decide to focus Earth Day 2018 on ending plastic pollution by 2020 (Earth Day Network, 2018).

3 Literature review

Even though plastic has been viewed by other fields as an issue for a long time and the material has been around since 1862 (Modjarrad, 2014), the field of criminology has not done much research on the issue. Most of the criminological research has focused on other areas closely linked to plastic, but not on the plastic itself. Roughly, the relevant criminological literature can be sorted into four categories: (1) socio-economic differences and north-south divides; (2) technology and plastic; (3) water and how it can be exploited, for example through the industry of bottled water; and (4) responsibility and environmental awareness. In this chapter I present the criminological literature regarding each of the topics, and I show its relevance for my research.

3.1 Socio-economic differences

Spapens, White, van Uhm and Huisman (2018) document that vulnerable groups are disproportionally harmed by environmental crime due to their socio-economic status and the political situation in a country; the poor are more affected by environmental crime than the rich, and the non-industrialised countries are more affected than the industrialised countries. The global south is often the most vulnerable area due to a weak regulatory system and government as well as a low socio-economic standing; governments in that situation are therefore more likely to accept financially good, though sometimes illegal, waste shipments without thinking about the possible consequences it may have for the country, its inhabitants and the environment. Having a weak regulatory system and government also puts environmental concerns low on the political agenda. Consequently, waste traders are 'allowed' to look around for the lowest costs for waste disposal and bribe officials in poor countries with attractive prices for accepting toxic and hazardous waste into their lands. Among the traded waste are plastic elements (Spapens, White, Uhm & Huisman, 2018).

Other contributors, like Hook, Reed, Brisman, South and McVeigh, also look at socio-economic differences in relation to plastic waste. They remark that waste is generally produced in the Global North, but often ends up in the Global South due to their socio-economic and political difference; plastic is not an exception from this. If plastic waste is not treated correctly, it can cause severe harm to the environment, animal life and human life. The Global North produces a lot of the plastic waste, however the necessary systems to recycle the waste in an environmentally friendly way is not implemented. The waste is therefore sent to the Global South as a solution for the Global North; the Global North transfer their harm to the

Global South. However, the Global South also does not have the necessary systems in place to environmentally friendly dispose of the waste and it is therefore leading to damage to both the environment and the health of human beings in the Global South. The global recycling trade is low-paid and extremely unhealthy for the Global South causing both land and air pollution. Nearby communities to the dumping sites suffer serious diseases at a steady increase. Environmental harm is more likely to affect the disadvantaged and disempowered social groups. The groups are more often exposed to environmental risks and hazardous waste which is associated with lower life expectancy and health quality. However, harm from environmental related sources is often invisible or unknown and the full extent of environmental victimisation is therefore unknown. The Global North is taking advantage of the socio-economic differences and transfers harm to the Global South via the global recycling trade (see Hook & Reed, 2018; Brisman & South, 2017; McVeigh, 2018; South, 2014).

3.2 Technology and consumption

Brisman and South (2017) analyse the diverse dynamics producing the overarching presence of plastic in the world. Both production and consumption end with a massive pile of waste. Not only does it exhaust materials, labour and other sources of energy, but it also produces harmful chemicals, toxics and other kinds of waste that is both currently unusable and unwanted. This is also true for plastic; plastic is the product of a growth in chemistry and technology. However, with the rise in technology, there was also an increase in the production of toxicity and toxins which the material of plastic contains a wide range of. Plastic is derived from unrenewable materials such as oil, coal and natural gas. Plastic is not biodegradable and is therefore nearly impossible to get rid of. Plastic waste is also both difficult to recycle and if the recycling process is done correctly, it will emit harmful toxins and chemicals. However, if plastic is not recycled, it will end up in the nature all over the globe, slowly breaking into smaller pieces but never disappearing. The toxins in the plastic will eventually transfer into the soil and the food chain, consequently harming the animals consuming it as well as the environment (Brisman & South, 2017).

Brisman and South (2017) points to thermal and electric insulation, durability and strength as some of the versatile and useful qualities plastic has. Because of these qualities, plastic can be found in a wide range of products; some of these being shampoo bottles, shopping bags and children's toys. We are aware of a lot of the products containing plastic; however, plastic is also used in other products we do not necessarily associate with the material. One example of

this are the filters in cigarettes. Filters are made of plastic and every year 750 000 tonnes of these end up in the environment. Another example is makeup products which contains plastic in the form of plastic beads. The beads are too small to be caught by the filtration system, and therefore end up in the ocean and the environment. Brisman and South (2017) points to how we in conscious or unconscious actions buy and discard plastic products. Even though we may consciously recycle plastic waste and choose items we believe to use less or no plastic-; unconsciously, we may use products that we are not aware contains plastic material and add to the issue of plastic in the ocean (Brisman & South, 2017).

3.3 Water

Most of the criminological research that mentions plastic focuses on water or on pollution but not specifically on plastic. Brisman et al. (2018) look at how most countries impose restrictions on the discharge of pollutants in waters and the quality of drinking water. The most common concern when it comes to water, is whether it is polluted. Polluted water is easy to notice as it tastes, smells and looks different to clean water. However, in some cases whether the water is polluted or not is not the problem, the access to water is. In the circumstances where the choice is polluted water or no water, polluted water is better than no water at all. In periods of drought or if the water is polluted, the access to clean water is unobtainable or inaccessible (Brisman et al, 2018).

Johnson, South and Walters (2016) look at the rise in exploitation of fresh water and the consequences of water scarcity. Of all the water on our planet, only 2,5% of it is fresh water. However, most of the fresh water is inaccessible due to it being trapped in ice or being in inaccessible areas. Due to the difficulty of access to fresh water, one billion people worldwide have irregular access to safe drinking water. When environmental disasters strike or war breaks out, water scarcity further rises and consequently also the number of people not having access to safe drinking water. The exploitation of fresh water is so high that by 2030 the United Nations expect the annual requirement for clean water to exceed the current supply by 40% (Johnson, South & Walters, 2016).

Johnson, South and Walters further look at how fresh water is exploited and primarily point to two main reasons: (1) corporations and states; and (2) the bottled water industry. Corporations and states exploit water sources by using legal doctrines to argue that they own the territory or area of the water source and are therefore consequently allowed to charge for the use of the

water. The 1992 Convention on Biological Diversity is one of the legal doctrines that states and corporations exploit in order to claim they own the territory or area. The 1992 Convention on Biological Diversity establishes that states have the sovereignty over the natural resources within their territory. States can therefore 'legally' keep people away from the water source, exploiting the water source itself whilst also exploiting the people's fundamental human right to clean water. The second primary way to exploit fresh water is through the industry of bottled water, which is directly connected to the issue of plastic in the ocean. Bottled water has issues of pollution during all stages of its lifecycle; the manufacturing, the transport and the disposal of the bottled water all pollutes the environment. Highly industrialised countries, in particular, have seen an increase in the popularity of bottled water in the recent years, despite their access to free, clean tap water. One of the major reasons for this is the marketing of bottled water; when marketed, bottled water is portrayed as pure and claims to contribute to a 'mental and physical revitalisation'. The primary marketing of bottled water shows bottled water as a healthier option to tap water, even though no evidence exists to support the claim. Subsequently, creating a distrust in public water suppliers among the public. The distrust in public water suppliers has further expanded both the market and the profit for the bottled water industry. Consequently, the pollution emitted as well as both the use and the disposal of plastic has also risen (Johnson, South & Walters, 2016).

3.4 Environmental awareness and responsibility

South and Brisman (2013) look at how environmental awareness and knowledge have increased but has seemingly had little effect on the plastic market. In recent years, several international agreements relating to environmental preservation have been signed. Consequently, increasing the awareness and knowledge around the issue of plastic. Despite this increased conscience about the issue of plastic in the ocean, suppliers still supply the market with plastic and plastic products and consumers still buy the products despite being aware of the environmental harm their actions are causing. It may seem like both the consumers and the industry, either consciously or unconsciously, continue to ignore the issues plastic create. As awareness of an issue increase, a pattern of global and local denial of accountability and responsibility emerge. This phenomenon can be seen with the issue of plastic in the ocean; as awareness and knowledge of the issue of plastic in the ocean increase, nations, corporations and/or organisations take no responsibility and 'refuse' to change. The degradation of the environment and climate change pose great threats to the environment, animals and humans, yet we continue to support and invest in organisations and ideas that continue to use products, materials and re-

sources that damage the environment. To stop this, both those who supply the market and the consumers need to change their behaviour. Justifying one's own behaviour as legitimate and normal and choosing to remain ignorant of the issue whilst ignoring the crimes of environmental exploitation lead to great consequences. Regarding the issue of plastic in the ocean, consequences range from species extinction, to irreversible damage, to the environment and harm to human beings (South & Brisman, 2013).

If we continue to ignore issues concerning the environment, the consequences will eventually be irreversible. South (2014) presents a four-fold typology to represent the dimensions of time and space from now to all the accumulating problems for the future. However, I will only look at the two dimensions that are related to my project: 'the socio-economics of everyday ecocide' and 'global connections'. The first dimension looks at 'the socio-economics of everyday ecocide'. Actions such as over-consumption, the production of waste, and the disposal of waste forms a pattern that is called 'everyday ecocide'. We over-consume, discard our waste, spoil our soil, pollute our water and food, and litter all around us. Our own actions contribute to a cycle of contamination and destruction gradually killing our natural environment. Some of the waste is biodegradable, most is not. Plastic for example, is not biodegradable and will therefore never disappear. Much of the waste is also dangerous as it is now and/or in the future when it is deteriorated (South, 2014).

The second dimension, 'global connections', looks at the increased frequency and scope of natural disasters shaped by human actions and behaviour. Climate change, resource deprivation and waste, including plastic, are all a result of human impact and human action that affect both human beings, animals and our environment. We are increasingly dependent on our environment; however, we are at the same time destroying it with our over-dependence resulting in over-exploitation and excessiveness. Plastic is an example of human impact on the environment. Plastic is a manmade non-biodegradable material that is used in a wide range of products. However, when we discard the plastic, it often ends up in landfills all around the world. Plastic waste will never disappear but stay in our environment forever, harming and damaging the environment, as well as animals and humans (South, 2014).

3.5 Relevance of contribution

As I have shown in this chapter, criminology has not prioritised research on the issue of plastic despite being an urgent and highly harmful issue. Most of the research done on the ocean

and/or water, focus on exploitation and/or commodification. If plastic is even mentioned in a text, it is often under a subheading or in a subordinate clause and certainly not as the main point of the article. The lack of research on the topic of plastic is a knowledge gap. The issue about plastic in the ocean is also about the harm it does to the environment and the animals. The harm done by plastic to the environment and animals makes it extremely important to research and study to prevent it.

Even though there is a lack of criminological research on the issue of plastic in the ocean, awareness and knowledge has increased lately consequently resulting in a change in the public perception of plastic. With that change, the media's representation of plastic in the ocean has changed too. The criminological research conducted so far has not focused on the connection between the issue of plastic in the ocean and how the media's representation of plastic can affect individual and collective human behaviour around the issue. I here argue that as the public's perception of the issue changed, so did the reporting of the newspapers, and vice versa. More and more newspapers are writing stories about plastic in the ocean, and new articles are published very frequently. The problem of plastic in the ocean has been put on the agenda by newspapers and is therefore one of the most relevant topics at the moment.

The goal of presenting this literature review was, first, to show the knowledge gap that exists in criminology regarding the issue of plastic in the ocean, and second, to argue why my research makes an important initial contribution to filling this gap. More knowledge may increase public awareness, which at its time may turn into actions to prevent and curb the problem.

4 Method

4.1 Document analysis

I used a qualitative approach to conduct this research. Specifically, I employed a document analysis, which was the most adequate choice as it focuses on the mass media and how their reporting on a specific issue has changed over the years. Documents can be a lot of different material. The concept of 'document' loosely refers to materials that can be read in one way or another –thus encompassing both texts and images. However, it is important that the material is not intentionally produced by request of the social researcher (Bryman, 2012). In this project I have chosen three Norwegian newspapers based on criteria outlined in section 4.1.1.

I assessed the quality of the documents based on four criteria. The first criterion was authenticity; which focuses on whether the document has a questionable origin and that the evidence presented is genuine. The second criterion was credibility, which evaluates whether the evidence presented in the document is free from distortion and error. The third criterion was representativeness, that examines if the evidence presented is typical for its kind. If the evidence is not typical for the case presented, it is important that it is noted. The fourth criterion was meaning, which checks the clarity and understandability of the evidence (Scott, 1999). While collecting and assessing which articles to include in my project, I had those four criteria in the back of my mind.

4.1.1 The selection

In today's society, there are several ways to read a newspaper, either in paper format, on a computer or on a mobile device. These different methods of consuming news are different for the different age groups in the population. 77% of people in the age group 25-34 years and 75% of people in the age group 35-44 years reads a newspaper on their phone every day. For the paper issue, the numbers are 19% and 29% respectively. This shows how important newspapers on the web and phones are for those age groups. For the elderly, the picture is the opposite. 16% reads the paper on their phone whilst 72% reads the paper issue (Medienorge, 2018a). To get a representative image of the information provided to the whole population it is therefore important to consider several methods of consuming news.

I chose which newspapers to study based on the number of readers they have. I used the studies conducted by 'Forbruker & Media' (consumer and media). They were first conducted in

1988 and have been recreated and published every year since then. The study measures, among other things, the number of readers of newspapers and internet use which is relevant for this project, and it combines measurements of use of media with market and consumer questions. It is also this study newspapers refer to when announcing their official number of readers (Medienorge, 2017). The study also weights the result for education, age, gender and geography. This makes the data representative for the whole population (Medienorge, 2018b).

Table 1: Average number of readers of each newspaper sorted by medium

Newspaper	Paper	Web	Mobile device	Total (paper and web)
Aftenposten	386 300	816 100	469 700	1 202 400
VG	300 400	1 974 300	1 452 300	2 274 700
Dagbladet	169 800	1 165 600	723 100	1 335 400
NRK	-	1 394 500	838 300	1 394 500

Table 1 shows the average number of readers of each newspaper sorted by medium. The three most read newspapers based on their paper issues are 'Aftenposten', 'Verdens Gang' [VG] and 'Dagbladet'. On a daily basis, 'Aftenposten' has an average of 386 300 readers, 'VG' has 300 400 readers and 'Dagbladet' has 169 800 readers (Medienorge, 2018c). I did not include 'Norsk Rikskringkasting' [NRK] as they do not have any paper issue of their newspaper. On the web, the four most visited newspapers are also 'Aftenposten', 'VG', 'NRK' and 'Dagbladet'. On a daily basis, 'Aftenposten' has an average of 816 100 visitors, 'VG' has 1 974 300 visitors, 'NRK' has 1 394 500 visitors and 'Dagbladet' has 1 165 600 visitors (Medienorge, 2018d). On a mobile device, these four newspapers are still the most visited. Visitors from a mobile device are included in the data from the web, but it is also interesting to see how many people use a mobile phone to read news. On a daily basis, 'Aftenposten' has an average of 469 700 visitors, 'VG' has 1 452 300 visitors, 'NRK' has 838 300 visitors and 'Dagbladet' has 723 100 visitors (Medienorge, 2018e). In total, including both web and paper issues, 'Aftenposten' has 1 202 400 readers, 'VG' has 2 274 700 readers, 'Dagbladet' has 1 335 400 readers and 'NRK' has 1 394 500 readers.

The newspaper 'VG' is clearly the most read, with almost 1 000 000 more readers in total than the newspaper in second place. I will therefore include 'VG' as one of my three chosen newspapers. The second newspaper I have chosen is 'NRK'. This was the second most read newspaper, which is astonishing as it does not have a paper issue. This is also a state-owned

newspaper which may be interesting to see if there is any difference between privately and state-owned newspapers (Regjeringen, 2017). Choosing the third newspaper was more of a challenge. In total, 'Dagbladet' has more readers than 'Aftenposten' by a margin of 133 000 readers. However, when it comes to the paper issue, 'Aftenposten' has 216 500 more readers than 'Dagbladet', though this also means that 'Dagbladet' has 349 500 more readers than 'Aftenposten' online. In the end, I chose the newspaper with the most readers overall as these are the most representative for the population as a whole. I also decided to only look at the digital issues as it has proved to be a challenge to get a hold of the paper issues (besides being an environmentally unfriendly practice). 'NRK' does not even have a paper issue. I will therefore only look at digital issues and articles posted online on their respective websites. The three newspapers I studied are therefore 'VG', 'NRK' and 'Dagbladet'.

As I was reading through the articles, I found that they were referring to the same turning point. Several articles point to the 'Plastic Whale' as being the turning point (see Farestveit & Aarekol, 2018; Aarekol, 2018; Fjeld, 2018; Mortensen, 2017; Hella & Olsen, 2017; Helljesen, Skrede & Senel, 2017; Engebretsen, 2017; Stokka, 2017; Olsen & Johansen, 2017; Otterlei & Reikerås, 2017). The 'Plastic Whale' was on the 29th of January 2017 found at a beach in Sotra outside of Bergen with 30 plastic bags and other small plastic objects in its stomach. The whale got massive attention in media, both in Norway and other countries around the world. The 'Plastic Whale' made people get involved in the issue of plastic in the ocean –7 out of 10 Norwegians considered that plastic in the ocean was the most important environmental issue in 2018 (Fjeld, 2018). 25% of the Norwegian population has since tidied the nature, beaches and ocean of plastic (Farestveit & Aarekol, 2018), and fewer people choose a plastic bag when they are shopping (Stokka, 2017). The 'Plastic Whale' was a wake-up call for the population and newspapers alike around the issue of plastic in the ocean. Due to these reasons, I chose the 'Plastic Whale' and 2017 as the turning point in the way media reports about plastic. To see differences between before and after the turning point, I examined the years between 2015-2018; thereby including two years before the turning point, i.e. 2015 and 2016, and two years after, i.e. 2017 and 2018.

4.1.2 The analysis

My analysis was based on the collection of primary data from 405 articles in the period between January 2015 and August 2018 from the Norwegian newspapers NRK, VG and Dagbladet. I followed the 'complete collection' sampling technique (Flick, 2009) by limiting

the search in advance by certain criteria. I used the Norwegian keywords 'plast i havet' and 'plastikk i havet', where both keywords translate to plastic in the ocean in English. At this first stage I got a total of 15 195 entries. I therefore looked at each newspaper year by year, from the 1st of January to the 31st of December each year except the year 2018 where the last date I looked at was the 31st of July as this was the time of writing. I got 91 entries from 2015, 170 entries from 2016, 288 entries from 2017 and 294 entries from 2018. However, a lot of the entries were about themes other than plastic in the ocean. I found several food recipes, tests of shower doors and tests of headphones. After weeding out the articles that were not relevant, I had 405 articles left, which were all in some way related to plastic in the ocean.

I decided to focus on topics that came up throughout the material and therefore did a theme centred analysis (Thagaard, 2009: 171). I also utilised grounded theory as I read the articles with an open mind but limited the focus according to the stated research question whilst also reflecting about the topics while reading the articles (Bryman, 2012: 565-575).

The purpose of my analysis of the articles was to gather data to illustrate how the media has changed its reporting and the frequency of the reporting on plastic in the ocean. I therefore sorted the material into topics and developed codes continuously having the data govern the codes (Bryman, 2012). I linked the data with an overarching category and further sorted them into subcategories. I also connected each article with a link to their entry in the newspaper so if needed I had the option to go back and reread the original article. Having the option to go back to the original article also has the benefit of me being able to remember the context and see the entirety of the material in the instances where I may only want to use a small fraction of the data (Thagaard, 2009: 149).

My analysis was guided by a thematic analysis. The idea of a thematic analysis is to construct an index of overarching themes and sub-themes. The themes are a product of reading and re-reading the material and consists largely of reoccurring themes. In thematic analysis there are four guidelines to follow when constructing and inserting material into the index of themes. First, the data should indicate where it came from to facilitate finding the original text. I solved this issue by having a column for each article where I pasted the link to the original article. Second, the language used in the index material should be kept as closely to the original as possible. Third, the amount of quoted material should be kept at a minimum. I solved this by choosing only the most representative quotation for each subtopic and using it to illus-

trate an idea, rather than including many quotes. Fourth, the cells should be kept as small as possible and it is therefore advised to use as many abbreviations as possible whilst keeping the cells understandable (Bryman, 2012: 578-581). I early noticed several themes and words that were repeated in many of the articles, and quickly made abbreviations for these. I also made a document with the abbreviations I used and their 'translation' in case I forgot what the abbreviations meant (see Appendix A).

In a thematic analysis there are eight points that are recommended to follow when outlining the themes. First, one should be looking for repetition and topics that reoccur several times. Second, one should look for indigenous typologies or categories which are expressions utilised in an untypical way for the topic. Third, one should look for metaphors and analogies. Fourth, one should look for transition and the way topics may shift. Fifth, one should look at similarities and differences. This looks at how different articles may discuss a certain topic in similar or different words and ways. Sixth, it looks at linguistic connectors. Use of words like 'because' or 'therefore' and such implies that the writer thinks of a relationship in a causal connection. Seventh, it looks at missing data. One can often learn a lot from what is missing as well as from what is there –in this case, from what is not reported. Eight, one should look at theory-related material (Bryman, 2012: 578-581). I used these eight notions to come up with the themes for my analysis. Some of the eight points are more important than others, and some of them fit more with my research question than the other ones. I therefore did not blindly follow them but chose to focus on the ones that were appropriate for my project. The first point specially, repetition, is the one I paid a lot of attention to as I found a lot of repetition in my articles.

I have been interested in the issue of plastic in the ocean for a while and have therefore read several articles about the issue before. I therefore had a reasonable notion of which themes would come up in a lot of articles. Before starting the data collection, I therefore created a few categories I knew would appear. Some of these were 'the impact on animals' and 'waste management'. The analysis of the data also gave these overarching themes some subthemes. 'The impact on animals' were among other things given the subtheme of the 'Plastic Whale'. I made the 'Plastic Whale' into a subcategory as this has been frequently written about and is also an important event in the changing of representation of the issue of plastic in the ocean. For 'waste management' I, to mention one, created a subtheme named 'food'. This subtheme collected all articles on food and plastic, for example packaging. Simultaneously whilst gath-

ering and analysing the data, I also constructed more themes and subthemes to fit with the new data I collected.

After having analysed the material I sought to connect my insights into the changing patterns of reporting on plastic in the ocean, with the legislative activity on the topic in Norway, to have an idea of how much media influence law issuing in environmental issues. Finding laws and regulations that have been approved was an easy task as it is all available online at the webpage Lovdata.no (Lovdata, 2019a; Lovdata, 2019b). However, finding laws and regulations that had been rejected or are waiting for approval proved to be a harder task. As I was unable to find such information on my own, I turned to several experts: my supervisor, and professors at the Law Faculty of the University of Oslo. This led to a snowball in which my email was forwarded five times before I got a definitive answer. An expert told me that there is no register over rejected laws or laws waiting for approval in Norway. However, she suggested that I looked at the hearings section on the Norwegian Environment Agency's [NEA] webpage (Miljødirektoratet, 2015). The hearings on the webpage were not sorted in anyway and did not have any search function. Using a script over the hearings from NEA's webpage enabled me to use the 'search and sort' function, which made it easier to find the information I was looking for without having the go through all the hearings. I sorted the hearings by year and had the program only show the hearings from the years I was interested in, i.e. 2015, 2016, 2017 and 2018.

4.2 Ethical reflections

In my project, I have utilised document analysis of articles from newspapers and have therefore not processed any personal information. My project does therefore not need to be reported to 'Norsk Samfunnsvitenskapelig datatjeneste' [NSD] and neither does it violate the privacy act (NSD, 2018).

5 Results

Throughout the analysis of my data I found several trends and topics that have had more publicity than others. In this chapter I present the findings of my study, following the order of the aims of my study. In the present chapter I first look at when a transformation happened. Second, I look at why that transformation happened. Third, I look at how plastic was represented in the media 4 years ago. Fourth, I look at how plastic is represented in the media nowadays. And last, I look at the legal repercussions.

Table 2 shows the number of articles written by each newspaper sorted by year and show a huge discrepancy in the number of articles written by each newspaper. Over the four last years, VG has written 33 articles, Dagbladet 63 articles, and NRK has written a total of 309 articles. Table 2 shows that NRK has dedicated more space to the issue of plastic in the ocean throughout the year of my study than Dagbladet and VG. Considering NRK is the only public newspaper whilst the other two are private newspapers, it is interesting to note that the public newspaper has dedicated more resources to cover the issue of plastic in the ocean.

Table 2: Number of articles per newspaper by year

Newspaper	2015	2016	2017	2018	Total
VG	0	3	11	19	33
Dagbladet	6	5	24	28	63
NRK	16	39	139	115	309

5.1 When did a transformation happen?

To figure out when a transformation happened, I looked at how many articles have been written each year. As table 3 shows, in my data collection, 22 of the articles were written in 2015, 47 in 2016, 174 in 2017 and 162 in 2018. It should be noted that the years 2015, 2016 and 2017 includes all 12 months, while 2018 only includes the months January to August. This may be the reason for the lower number of articles in 2018 and it would most likely be at the same level as 2017 or higher had it included the whole year.

Table 3: Number of articles 2015-2018

Year	Number of articles
2015	22
2016	47
2017	174
2018	162

Table 3 show that a significant change happened between the years of 2016 and 2017. Compared to 2016, 2017 suddenly had 127 articles more written about the topic of plastic in the ocean. This signifies that a change must have happened between the years of 2016 and 2017.

Table 4: Number of articles in 2017 by month

Month in 2017	Number of articles
January	4
February	36
March	20
April	12
May	18
June	8
July	15
August	11
September	10
October	9
November	11
December	20

Further, looking at each of the months in 2017 (table 4), there is a huge spike in articles written in February, with 36 out of the 174 articles. That is about 20% of all that years' articles. For the rest of the months in 2017, there are between 8 and 20 articles written. Which is quite high if we compare it against the whole years of 2015 and 2016 which had only 22 and 47 articles respectively. Clearly, an event, or an attitude or behaviour change in February 2017 must have sparked the transformation

5.2 Why did a transformation happen?

From the previous section it is arguable that the transformation happened at the start of 2017 which further begs the question about what happened during that time period. I will therefore take a deeper look at the 36 articles from February 2017.

Table 5: Topic of the articles in February 2017

Topic	Number of articles
The Sotra whale	13
Plastic emission	3
Plastic affecting marine animals	2
Self-help guide to how you can lower your plastic emission	1
Trash abroad	1
Beach clean-up	5
Tax/ban	3
Politics	2
Ordinary people make a difference	4
How to fix the issue	2

As can be seen from table 5, the topic that obtained most coverage in February 2017 was the Sotra Whale with 13 out of the 36 articles or 36%. The Sotra Whale was a whale that stranded and died with his stomach full of plastic on a beach in Sotra just outside of Bergen in Norway on the 29th of January 2017. As the stranding happened so late in the month and the fact that the media had not yet started writing about the issue of plastic in the ocean other than a few articles here and there, the media spent a few days before they reported about the event. Once the media saw the outrage and attention the incident attracted, the three newspapers I analysed wrote 13 articles in February alone solely about the occurrence. Based on this, I would claim that the Sotra whale sparked the transformation of the Norwegian media's representation of plastic in the ocean.

Throughout the year of 2017, 20 articles were written only about the Sotra whale and its incident. Several other articles also mentioned the Sotra whale, but only in a smaller section of the article. The articles often had a different focus than the Sotra whale, but it was still mentioned which show how eye-opening it was and the outrage the incident sparked.

Most of the other half of the 36 articles from February can also to a certain point be attributed to the Sotra Whale. Even though the Sotra whale may not be mentioned in the articles, the articles would not have been written had it not been for the interest and attention the occurrence sparked amongst the public. Certain people and organisations had been trying to deal with the issue for several years, but the Sotra whale woke up the nation, and the public realised the danger plastic poses to marine animals and the environment. After the incident, a lot of attention was given to plastic polluting the ocean (Olsen, Raunholm & Lagmandokk, 2017). However, it should be noted that most of the articles do mention a sentence or two about the Sotra Whale.

The second largest topic of February 2017 were beach clean-up with 5 articles written. This category consists of articles about beaches being tidied and cleared for plastic all over Norway. February might be a strange time to clear beaches as it is quite cold and large parts of Norway may also be covered in snow. However, February 2017 was an unusual year with little snow and warmer than normal temperatures (Toppe, 2017). Seeing that only 14 articles were written about beach clean-ups in 2015 and 2016 combined, it may seem like the attention and 'popularity' the Sotra Whale attracted may not only have influenced the newspapers to write more about the beach clean-ups but may have also influenced more people to arrange and participate in the events themselves. This insight exemplifies the importance and the power of the media. Compared to 2016, the amount of people participating in beach clean-ups in 2017 doubled and the amount of marine waste cleaned more than doubled from 400 tonnes to 1000 tonnes. Organisations and media articles point to the Sotra whale as the reason for this, naming the accident a "necessary wakeup" (Skodje, 2017). After the Sotra Whale incident the focus on cleaning up the beaches increased by people realising the issue of plastic in the ocean and wanting to make sure the Sotra whale did not die in vain (Espeseth, Indreiten & Fagerheim, 2017; Korsnes & Bondevik, 2017; Mortensen, 2017; Olsen, Raunholm & Lagmandokk, 2017).

The third largest topic was what I call 'ordinary people make a difference'. These are all articles about people who have been inspired by the issue of plastic in the ocean and have decided to try and make a difference. One of these people for example, decided to collect plastic trash from the beach near her home and make a 'bunad' (traditional Norwegian clothing), out of it as her way of putting the issue on the agenda.

The rest of the topics were even with 1 to 3 articles per topic. In the category tax/ban there were 3 articles and 2 articles in the category politics. These topics are self-explanatory, but these articles are about the taxes, bans and politics around the topic of plastic in the ocean. A lot of these were implemented as a direct result of the Sotra Whale and the increased awareness of the issue the incidence brought with it.

The increased awareness of the issue also brought along ideas on how to fix the issue and attention to plastic emission. Organisations, fishermen and the boat industry were scrutinised for how they handled their plastic emission and 3 articles were written about this topic. The attention around their mishandling of their plastic emission also brought forth ideas on how to fix the issue. 2 articles were written about it. The increased attention to the problem also increased the interest around self-help guides to how you can lower your plastic emission, and consequently one article was written about the topic in February 2017.

In addition to the articles about the Sotra Whale, 2 other articles were written about plastic affecting marine animals. The focus of those two articles was how marine animals getting entangled, hurt or killed by our plastic waste. As this kind of topic plays on the readers feelings, we therefore often find it 'important' to find someone to blame for the injustice. One article was written about trash abroad. This article was about where the plastic waste we find on our shores and in the ocean come from.

5.3 How was plastic represented in the media 4 years ago?

To look at how plastic was represented in the media 4 years ago, I decided to combine the articles from 2015 and 2016, i.e. before the transformation happened, to have a better sense of the topics that were written about. In 2015 and 2016 there were 69 articles written in total, which is 17% of the total number of articles from my data collection.

Table 6: Topic of articles in 2015 and 2016

Topic	Number of articles
The Sotra whale	0
Plastic emission	14
Plastic affecting marine animals	27
Self-help guide to how you can lower your plastic emission	0
Trash abroad	0
Beach clean-up	14
Tax/ban	0
Politics	3
Ordinary people make a difference	2
How to fix the issue	9

Table 6 shows the number of articles written about each of the topics in 2015 and 2016 combined. As can be interpreted from the table, the topic on plastic affecting marine animals were clearly the most written about topic in 2015 and 2016 with 27 articles. These articles are about marine animals getting entangled, hurt or killed by plastic in the ocean. They thug on our heartstring which make us care about the animals and their fate.

The second most written about topic were plastic emissions and beach clean-up with 14 articles each. The articles about beach clean-up are often from smaller towns, but it does show that people did care about the environment before the media's turning point. Plastic emission was also written about, especially about fishermen and their industry dumping waste into the sea as it would cost money to bring it to the shore.

Another topic that was written about was how we can fix the issue. 9 articles about the topic were written in 2015 and 2016. Most of these were about Boyan Slat and his Ocean Clean-Up project. However, there were also articles about fishermen doing their best to clean up the ocean, a deed that helped them improve their reputation.

Ordinary people who make a difference was a topic that had 2 articles written. The broad topic of plastic in the ocean was not a focus for the media, and as such the number of articles were fewer. The amount of people participating in beach clean-ups can be seen as a represen-

tation of people knowing about the issue of plastic in the ocean and are willing to contribute to a change. There was a doubling of people participating in beach clean-ups from 2016 to 2017 (Skodje, 2017). This may indicate that plastic in the ocean was not a widely known issue at the time.

The topic of politics was not a popular having only 3 articles written about it. No articles were written about taxes and bans. This could mean that the political interest was low. Politicians usually focus on topics and problems that are important for the public. This could relate to the notion of 'populism' where political parties compete to be perceived as caring the most about a certain trending topic. The media is pivotal in shaping the public's perception, and it is therefore important for politicians to have their political standpoints broadcasted in the media and have their standpoint be in line with the public. Since the topic of plastic in the ocean was not yet 'important' for the public, the political interest was also low (Garland, 2001). The amount of people participating in beach clean-ups and the number of articles written about the issue of plastic in the ocean may be a reason for why only the 'green' political parties took notice of the problem. The legislative activity further proves this point. In 2015 and 2016 combined, 0 laws and 3 regulations were made by the government (lovdata, 2019a; lovdata, 2019b). The Norwegian Environmental Agency also held hearings about possible new laws, regulations, applications and changes of the existing regulations; there were none in 2015 and 3 in 2016 (Miljødirektoratet, 2016a; Miljødirektoratet, 2016b; Miljødirektoratet, 2016c). However, most of these laws and regulations did not mention plastic directly, but it was indirectly regulated by overarching laws about the environment and the climate.

So how was plastic represented in the media 4 years ago? As I have shown in this section, the media specially focused on 4 different types of representation. One type of representation was through plastic affecting marine animals. These articles focused on animals being hurt by plastic. The second type of representation was plastic emission. These articles focused on where the plastic came from and looked at different industries and companies as the culprit from the plastic emission. The third type of representation was beach clean-ups where the articles focused on people cleaning the beaches for plastic and other waste. The fourth representation was how to fix the issue. These articles focused on Boyan Slat and his project to clean the ocean of plastic, but also about how industries and companies were trying to improve their reputation by cleaning the ocean.

5.4 How is plastic represented in the media nowadays?

To look at how plastic is represented in the media nowadays I combined the articles from 2017 and 2018, or after the transformation happened. In 2017 and 2018, 336 articles were written about the topic of plastic in the ocean all together. This is 83% of my total data collection. It is therefore quite clear that in the sheer number of articles written about the issue that there was a transformation.

Table 7: Topic of articles in 2017 and 2018

Topic	Number of articles
The Sotra whale	23
Plastic emission	55
Plastic affecting marine animals	66
Self-help guide to how you can lower your plastic emission	9
Trash abroad	8
Beach clean-up	56
Tax/ban	30
Politics	50
Ordinary people make a difference	24
How to fix the issue	15

Table 7 shows the number of articles written about each of the different topics in 2017 and 2018 combined. None of the topics had zero articles written. In 2017 and 2018 the most written about topic was plastic affecting marine animals, just the same as in 2015 and 2016, with 66 articles. However, the sheer quantity of articles written was more than doubled.

The second most written about topic was beach clean-up with 56 articles. Cleaning the beaches has become some sort of a 'trend' these latest years as a way of showing that you care about and that you contribute by doing something about the issue of plastic in the ocean. The number of articles on this topic tripled.

In third place we find the topic of plastic emission with 55 articles. This is about 3 times as many articles as in 2015/2016. Knowing how and why the plastic ends in the ocean has be-

come an important question to answer in order to solve the problem. These articles try to point to a perpetrator or just inform about the amount of plastic that is already there.

Surprisingly, the fourth most written about topic was politics with 50 articles. As mentioned in the previous section, political parties will focus on topics important to the public to be perceived in a certain way by the public. The topic reaching the wider population and the population caring about the issue, meant that politicians had to address the issue as well. Having the media broadcast a political party's standpoint on the issue of plastic in the ocean, meant that they would be perceived as the party that cared about the issue and being environmentally friendly. This shows the power the media has on setting the political agenda also on environmental issues (Soroka, 2002). In 2017/2018 compared to 2015/2016 there was written about 16 times as many articles about politics. Legislative activity also doubled from 2015/2016 to 2017/2018 (lovdata, 2019a; lovdata, 2019b). There was also written 30 articles about taxes and bans compared to no articles before the transformation. Due to the increased attention from politicians, a way for them to show that they care and were trying to make a difference, was to implement bans and taxes to goods and services that use plastic, as for example the tax to plastic bags. The Norwegian Environment Agency's hearings, however, did not have the same development. They held 0 hearings about the issue of plastic in the ocean in 2015, 3 in 2016, 1 in 2017 and 1 in 2018. The increase in hearings in 2016 may have been due to the Paris Agreement that was approved in December 2015 and the politically increased attention to climate change that came with it (United Nations, 2015).

2017 was also the year the Sotra Whale stranded outside of Bergen in Norway and started the 'plastic revolution'. Consequently, there was 23 articles written just about this incident in 2017 and 2018. A lot of the other articles from those years mention the Sotra Whale, but only in a sentence or two, so the actual number of articles just mentioning the incident is much bigger.

Several companies came up with ideas on how to fix the issue in 2017 and 2018, and 15 articles were written about these ideas. The idea that was mostly written about and arguably most successful was Boyan Slat's Ocean Clean-Up project. Not only did companies and organisations want to make a difference, so did ordinary people as well. 24 articles were written about ordinary people trying to make a difference. This was people picking up plastic waste when out and about, people organising events to save the ocean of plastic or 'artists' making art out

of plastic waste. Due to the increased attention around the issue of plastic in the ocean, the general public also wanted to do something to decrease their plastic waste and save the environment. Thus, 9 articles were written about self-help guides to how you can lower your plastic emission.

The topic that was the least written about was trash abroad. Still, 8 articles were written about trash abroad. This included islands and beaches being covered in plastic waste, but also articles 'blaming' other countries for the issue itself and framing Norway as an example of a country with close to no plastic waste.

Table 8: Difference in number of articles written from 2015/2016 to 2017/2018

Topic	Difference in articles
The Sotra whale	+ 23
Plastic emission	+ 41
Plastic affecting marine animals	+ 39
Self-help guide to how you can lower your plastic emission	+ 9
Trash abroad	+ 8
Beach clean-up	+ 42
Tax/ban	+ 30
Politics	+ 47
Ordinary people make a difference	+ 22
How to fix the issue	+ 6

However, the most interesting observation might be the difference in the number of articles written per topic from 2015/2016 to 2017/2018 as shown by table 8. The topic that has increased the most is politics with a difference of 47 more articles. This shows how the interest from politicians has increased. Bans and taxes has also increased by 30 articles. Which again show the interest amongst politicians. Not only to talk about the issue of plastic in the ocean, but also to pass laws and regulations to tackle it.

That we care about the welfare of animals can also be seen. 39 more articles were written about plastic affecting marine animals. In addition to that, 23 more articles were written about

the Sotra Whale as well. Seeing the horror marine animals are submitted to because of our actions may have made us more interested and invested in the cause.

Seeing the harm and death we cause, the public also become more interested in making a change. 9 more articles were therefore written on the topic of self-help guides to how you can lower your plastic emission to help normal people feeling like they can make a change. Some people organise and participate in beach clean-ups as a way of making a change. 42 more articles were written about this topic in 2017/2018 compared to 2015/2016. Others come up with creative ways of illuminating the issue of plastic in the ocean, often through art or events. 22 more articles were written about the topic of ordinary people making a difference.

From 2015/2016 to 2017/2018 the general knowledge about the issue of plastic in the ocean also increased. 41 more articles were written about plastic emission, where the plastic comes from and what industries are the worst. 8 more articles were also written about trash abroad. Showing islands full of plastic and placing blame. Due to the increased knowledge and awareness, people also came up with ideas on how to fix the issue of plastic in the ocean, and the ideas received more attention than before. 6 more articles were written on this topic.

So how is plastic represented in the media nowadays? There are specially in 4 different ways plastic is represented. The first representation is through plastic emission just as it was 4 years ago. The articles write about where the plastic comes from and which organisations or industries are to 'blame' for the plastic emission. The second representation is through plastic affecting marine animals, just as it was 4 years ago. These articles look at how plastic is harming marine animals. The third representation is beach-clean ups, just as it was 4 years ago. These articles focus people cleaning up the beaches. The fourth representation is politics. This was a topic that was not a focus 4 years ago and has recently risen in popularity. Just as the issue of plastic in the ocean has risen on the agenda for the media, so has it risen on the agenda for the politicians. These four topics are also the ones that have seen the highest rise in articles written about them in the last 4 years.

5.5 Legal repercussions

The legislative activity in Norway during the last four years proves the likelihood of legal repercussions. In 2015 and 2016 combined, zero laws and 3 regulations were made by the Norwegian government. However, in 2017 and 2018, 2 laws and 4 regulations were made by

the government. This shows a small increase in legislative activity on the issue of plastic in the ocean from 2015/2016 to 2017/2018 (lovdata, 2019a; lovdata, 2019b). Most of these laws and regulations did not mention plastic directly, but it could be regulated under these overarching laws about the environment and the climate. However, just as with the global agreements and the current legal framework (covered in chapter 2 'context'), the laws and regulations have loopholes which prevents them from having the effect they should have. In my analysis, politics and tax/bans were two of the most written about topics in the Norwegian newspapers as well as two of the topics with the highest increase in number of articles written. However, even though it has been a popular topic to write about, it has not transferred into legislative activity. The number of articles written about politics and tax/bans have been high, however, the legislative repercussion, so far, has been small.

The same trend can be seen in the Norwegian Environment Agency. The Norwegian Environment Agency are also having hearings about possible new laws, regulations, applications and changes of the existing regulations. 2015 had none, 2016 had 3, 2017 had one and 2018 had one hearing connected to the issue of plastic in the ocean. In 2016, the Norwegian Environment Agency proposed three hearings about new and changes to existing regulations about marine waste and packaging waste. This included an increase in funds granted for measures against marine waste, reduce the amount of waste, littering and landfill as well as increased re-use and material recycling (Miljødirektoratet, 2016a; Miljødirektoratet, 2016b; Miljødirektoratet, 2016c). The Norwegian Environment Agency held a hearing in 2017 about rising the value of the bottle deposit to increase and preserve high collection rates and reduce the number of bottles ending up as waste (Miljødirektoratet, 2017). In 2018 The Norwegian Environment Agency held a hearing about a new directive on disposable plastic due to the new proposal by the EU commission. The purpose of the new directive was to reduce the negative environmental impact of disposable plastic and includes a significant reduction in the use of disposable plastic and a ban on certain products made of plastic (Miljødirektoratet, 2018).

6 Discussion

In this chapter I start by connecting the results of research with the research question and research aims I posed at the outset of this text. First, I look at each of the research aims and for each of them I explain what I have done and how I have answered them. Second, I examine the broader consequences of my study by discussing the power of the media. I use the concepts of agenda setting and moral panics. I analyse the implications of my research for the field of green criminology. Namely, I discuss my findings under the light of the three main green criminological theories: (1) the theory of the 'treadmill of crime' which focuses on economic structures; (2) the notion of speciesism and different ways to look at speciesism; and (3) North-south divides and how the global north has been and is still taking advantage of southern nations. I make special focus on how China's change in stricter policy on accepting trash from foreign countries has affected the rest of the world.

6.1 Research question

When I started this project, my goal was to find out 'how the representation of plastic in the ocean in the Norwegian newspapers has changed in the past 4 years'. To achieve this, I looked at three different Norwegian newspapers (VG, Dagbladet and NRK), and analysed the articles they published about the issue during the past 4 years (2015-2018). Through my collected data I was also able to pin-point a turning point: the incident of 'the plastic whale'/'the Sotra Whale' in 2017. I further divided my research question into four research aims; these were: how is plastic represented in the Norwegian media nowadays? How was plastic represented in the media 4 years ago? When and why did a transformation happen? What legislative repercussions has seemingly the transformation had on the way in which Norwegian newspapers represent the issue of plastic in the ocean? These research aims made it easier and more tangible for me to answer my research question. I divided chapter 5 ('Results'), into five parts focusing on my research aims; one part for each of my first two research aims, two parts for my third research aim and one for my fourth research aim. I answered each of my research aims with data from my study.

The first information I encountered was the difference in public and private newspapers. Before the turning point private newspapers wrote close to zero articles about the issue of plastic in the ocean, whilst public newspapers wrote almost three times as many articles. In the last 4 years, public newspapers have also had a higher increase in the number of articles written than private newspapers have had.

The first section of the 'results' chapter (5.1) was named 'when did a transformation happen?' as I there responded to my research aim with the same name. Through analysing my data, I found that a transformation happened in February 2017.

I named the second section of chapter 5 (5.2) 'why did a transformation happen' because I there answered to the aim with the same name. The answer to why a transformation happened would therefore be the incident of the Sotra Whale. This is also why I have chosen the incident as the turning point.

The third section of chapter 5 (5.3) was named 'how was plastic represented in the media 4 years ago?'. I noticed that the combined number of articles published in 2015 and 2016 was only 17% of the total number of articles I collected. This was a revelation as to the change that had happened in the media with the sheer number of articles they published before and after the turning point. To answer the research aim, I decided to look closer at all the articles published in 2015 and 2016 and sort them into 10 topic groups (that I also used for 2017 and 2018). The topics I sorted the articles into were the Sotra Whale, plastic emission, plastic affecting marine animals, self-help guide to how you can lower your plastic emission, trash abroad, beach clean-up, tax/ban, politics, ordinary people make a difference, and how to fix the issue. I looked closer at which topic had the highest number of articles written, and at which topics were not covered by these newspapers. Some of these were self-explanatory, the Sotra Whale for example had no articles written about it as the incident had not happened yet. I delved further into some of the topics, especially into tax/ban and politics, and looked at the legislative activity in the period. The research question of 'how plastic was represented in the media 4 years ago' was answered by looking at the articles written in 2015 and 2016 and analysing them. Four years ago, the media represented plastic particularly through 4 topics: beach clean-ups, plastic emission, how to fix the issue and plastic affecting marine animals.

The fourth section of chapter 5 (5.4) has the title of 'how is plastic represented in the media nowadays?'. I answered there my first research aim, with the same name. The first thing I noticed was that 83% of the articles I collected were written in the years of 2017 and 2018. There had therefore been a significative increase in the number of articles written. I decided to follow the same formula as used in chapter 5.3 and keep the continuity of my project. I therefore looked at how many articles had been written in each of the 10 topics I outlined in the

previous paragraph. Not only was I interested in the number of articles written in each of the topics for the years of 2017 and 2018, but I was also interested in the difference in the number of articles written per topic from 2015/2016 to 2017/2018. I therefore answered my research aim of 'how plastic is represented in the media nowadays' by looking at the number of articles written in each of my selected topics, but further looked at the differences from 2015/2016 to 2017/2018 in number of articles written. Nowadays, the media represents plastic mainly through the topics of plastic emission, plastic affecting marine animals, beach clean-ups and politics. This indicates that these are the topics the readers of the newspapers 'care' about and read. I will further discuss the media, their choosing of topics and how it affects the readers in the next section (6.2).

The fifth section of chapter 5 (5.5) I titled 'legal repercussions'. I answer my fourth research aim in this section, looking at the legislative activity in Norway during the last four years. I also connect the number of articles the newspapers have written about the topics of 'tax/ban' and 'politics' to the (lack of) legislative activity. Even though the newspapers have written a lot of articles about the topics, the legislative repercussions have been small so far.

6.2 The (assumed) power of the media

In our contemporary society, media is a dominant power that exploits its function of providing information and news. We read, watch or listen to news from the radio, tv, newspapers or webpages several times a day. Newspapers and the media are a force that affects our opinions and views, as we often gain a huge proportion of our knowledge of an issue from them. The information we attain from the media may not always be put under the criticism and judgement it deserves. Mathiesen looks at how media convey information and observes that because we are surrounded by unlimited sources of information, the media must use ever-increasing 'shock value' to gain the attention of the readers (Mathiesen, 2010). In this section I will look at two different perspectives to explain the power of the media, and to relate it to my research: (1) the process of agenda setting; and (2) moral panics.

The first theory I use to explain the power of the media is the process of agenda setting. Agenda-setting theory refers to the ability the media has to influence the importance assigned by the public to diverse topics. The media are also able to create public awareness and concern through agenda-setting. Agenda-setting studies have documented that an audience will regard a topic as more important if it is covered frequently and prominently. Agenda-setting

theory has two underlying assumptions: first, that the media does not always reflect reality, but shape and filter the truth to fit their story. Second, that the media has the ability to make the public think that some few issues are more important than others through media's attention (McCombs, 2005; McCombs & Shaw, 1972).

The media can therefore affect what is on the public agenda and how important the public deems the issue. The mere number of articles published on a topic is a factor that affects the public's view of importance of the issue. In my study, the number of articles written about plastic in the ocean went from 22 in 2015; to 47 in 2016; to 174 in 2017, and to 162 articles in the first 8 months of 2018. This evidences how the number of articles written has increased massively from 2015 to 2018. Considering that trend, agenda setting theory would predict that as there are more articles about the issue now it will be publicly seen as more important and create public awareness and concern.

The second perspective to explain the power of the media is the concept of 'moral panics'. The theory of moral panics was first introduced in Stanley Cohen's article 'Folk Devils and Moral Panics: The creation of the Mods and Rockers' from 1973. The term was coined to describe the public reaction and the media's reaction to the fights between 'the mods' and 'the rockers' in the 1960s and '70s. Moral panic is a feeling of fear spreading amongst the public about an 'evil' threatening their and the society's well-being. It is defined as the arousing of fear and concern over an issue, usually incepted and increased through the intervention of the mass media and moral entrepreneurs (Scott, 2014).

There are five key actors usually present in instances of moral panics. Cohen (1973) identify them as the 'folk devils', the law enforcers, the mass media, the politicians and the public. Four of which are present in the issue of plastic in the ocean. The first key actor, the 'folk devils', is the threat that begins the moral panic. In the case of plastic in the ocean, plastic is the threat and therefore also the 'folk devils'. The second key actor, the mass media, are the ones that break the news about the threat and continues to report on the issue. The media can therefore set the agenda for how the issue is discussed and portrayed. With the issue of plastic in the ocean, the mass media certainly has had a lot of articles written after the onset of 'the moral panic'. The third key actor, the politicians, respond to the threat portrayed by the media. Politicians often respond as a way of furthering their own agenda and their politician party and viewpoint as being on the 'right' side of a moral panic can gather votes and sympathy

(Cohen, 1973). After the turning point, the number of articles about politicians talking about plastic in the ocean rose significantly. The legislative activity around the issue of plastic in the ocean and the number of laws, regulations and hearings about the issue furthers the point. Before the 'moral panic', zero laws and 3 regulations were made by the government. There were also held 3 hearings about the issue. After the onset of the 'moral panic', legislative activity rose. 2 laws and 4 regulations were made, and one hearing was held (lovdata, 2019a; lovdata, 2019b; Miljødirektoratet, 2016a; Miljødirektoratet, 2016b; Miljødirektoratet, 2016c; Miljødirektoratet, 2018). The fourth key actor, the public, develops a concern about the threat and demand action from politicians and law enforcers to combat the threat (Cohen, 1973). Several petitions have been made to force the Norwegian government to stop polluting the ocean with plastic and microplastic. Greenpeace and Opprop.net have one of the most signed ones, with more than 33 500 signatures combined as of the 26th of March 2019 (Greenpeace, 2019; Opprop.net, 2019).

The theory of moral panics outlines a process of five stages; however, I will only use the four relevant ones in the analysis of the issue plastic in the ocean. The first stage is that someone or something must be perceived as a threat to social norms, the community's interest or the society – in the case of my study, it is plastic in the ocean. The second stage is the mass media writing about the threat, often in symbolic ways, to quickly make it recognizable to the greater public. The media's reporting of the issue of plastic in the ocean has used 'the plastic whale' found in Sotra as a symbol for the issue. The third stage is that policy makers and authorities respond to the threat, no matter if it is real or only perceived. This is usually done through new laws and regulations. In the case of the issue of plastic in the ocean, the articles about politicians suggesting changes were many and some of the suggestions also made it into the law. However, very few laws and regulations were implemented into the Norwegian law in the time period between 2015 – 2018 (lovdata, 2019a; lovdata, 2019b). The fourth stage is the moral panic and actions undertaken which may result in social change (Cohen, 1973). There are more articles written about the issue, more legislative activity around the issue and arguably therefore also more interest and knowledge about the issue amongst the public. A social change has clearly happened, for example in the public and how now more than double the people take part in beach clean-ups to try and save the marine environment (Skodje, 2017).

In this section I looked at two ways of seeing the media, its power and how it affects us: agenda setting and moral panics. Even though all the perspectives look at the media in a criti-

cal way and denounce the harms of the media, it is important to stress that the media is not necessarily all bad. Especially in the case of plastic in the ocean, the media can act as a moral entrepreneur for the protection of the environment and spread awareness and knowledge about the issue.

6.3 Green criminological theories

6.3.1 Treadmill of crime

In this section I look at the broader implications of my work for the field of green criminology. To do that I explore how my research fares regarding three different green criminological theories. The first one is Stretesky, Long and Lynch's (2014) concept of the 'treadmill of crime'. The treadmill of crime looks at how environmental harm is caused by global structural forces. The approach looks at how capitalist structures implement strategies to increase production and profit, and how those strategies simultaneously cause environmental harm and destruction. In this theory, the environment is engaged in the treadmill of production in two ways: first, via withdrawals of materials and resources from the environment in the production process. And second, via additions where the production process cause pollution because it cannot be 100% efficient. Additions are an accepted consequence of production though it produces chemicals that cause environmental degradation. Withdrawals, however, are unacceptable only for 'poor' extractors and as such favours capitalist interests. The goal of corporations is to make production as cheap and efficient as possible; something that most times has detrimental consequences for the planet's ecosystems (Stretesky, Long & Lynch, 2014).

Capitalist production with its withdrawals and additions alters the natural process of the natural ecosystem and causes ecological disorganisation. It has a negative impact on the relationship between organisms and the environment they live in. No matter if the act is defined as a crime or if the victim is a human being or a nonhuman being, harm is being done, and it affects the whole ecosystem around us for everyone. At the moment, we utilise our resources at an unsustainable rate seen from an environmental perspective. Environmental anomie is created by the difference in the resources we use and the availability of the resources. Environmental anomie is the disjunction between our desires and the environmental availability which again causes environmental disorganisation. In other words, the capitalist structure seems to believe that economic advancement is limitless even though the resources are limited. However, the rate at which we utilise our resources and the speed of economic advance-

ment can be adjusted, for example through an intervention from the state. The state can implement laws and regulations as well as control and facilitate the economic growth whilst considering and lowering the harm to marine animals and their environment (Stretesky, Long & Lynch, 2014). Existing laws regulating plastic in the ocean are few, and the few ones existing are general ones about environment and not specifically about plastic (lovdata, 2019a; lovdata, 2019b).

In the case of plastic in the ocean, economic forces seem to be facilitating the increased production. Plastic is a cheap material to make and it is therefore used in several objects for the benefit of reduced cost. Petroleum is withdrawn from the environment to produce plastic. Petroleum in itself is also bad for the environment, but since plastic is made from petroleum, the price of plastic is also dependant on the price of oil. As the oil prices decrease or increase, so does the price of making new plastic products. In 2016, the price of oil was so low that the price of making new plastic was cheaper than recycling. This made recycling, the environmentally friendly option, the most expensive alternative. That is an example of the functioning of the Treadmill of Production: corporations seek to increase profit disregarding the deleterious environmental consequences they might be causing. Plastic is a material that will never disappear but is broken down into smaller and smaller pieces; it will stay, in that state, in the biological system and ecosystems forever. When we choose to make new plastic products instead of recycling the already existing ones, we are making a choice to damage and harm our natural ecosystem, the environment as well as animal and human life even further. Throughout the plastic's lifecycle – e.g. production, transportation, and as plastic waste – there are continuous emissions of hazardous and dangerous chemical and toxins (Lamb et al, 2018; Hansen & Solbu, 2017; Naturvernforbundet, 2019). However, the toxins and chemicals emitted during the production are viewed as an accepted consequence even though they cause environmental degradation. This is an example of how the economic side dictates what action to take even though we are spending our limited resources and harming the ocean and its inhabitants (Kramer, 2016).

Connecting the treadmill of crime to my previous section about the power of the media (6.2), it is important that the media focus on the negative consequences that the economic forces has on the production of plastic. When the media sheds light on the long-term effects' plastic has on the environment, the people's opinion of the cheap and continuing production of plastic changes negatively. This gives companies that do not care about the effects a bad reputation

with the people, which they would have to consider when evaluating the costs of production. If the people view a company negatively, it could decrease their amount of sales, hurt their networks with other companies and consequently also decrease their income. The focus of the media could therefore have a positive effect lowering the production of plastic and force the plastic industry to focus on environmental options such as recycling.

6.3.2 Speciesism

Speciesism is defined as the prejudice or biased attitude favouring our own species against those of other species (Sollund, 2004). When discussing animal rights and speciesism there are often two different directions that are highlighted; the first one is based on intrinsic values and the second one on moral rights. The first direction is based on the principle that every species has equal intrinsic value despite being different. Every species should therefore be treated with the same respect. Every species can feel pain and causing harm to any individual disregarding the species should therefore be avoided. Green criminology, consequently, looks at how we should treat animals to avoid causing them harm, pain and suffering. The second direction adopts a natural rights perspective in which animals have a moral right not to be harmed or killed. Every being, both animals and humans alike, have a value independent of their use for others and experience both good and bad situations. Both directions agree that animals should be treated good and we as humans should look to avoid causing harm, pain and death to them (Sollund, 2008).

In this section I look at three different forms of how speciesism is seen, why it happens and connect it with the issue of plastic in the ocean and the nonhuman beings it affects. I look at it from the notions of difference, distance and denial. The first explanation is difference. Sympathy is reinforced through nearness, likeness and recognition whilst difference creates emotional distance. By regarding others as different and not as a part of our group, our moral limits to nonhuman animal exploitation decrease. Nearness is an important feature when recognising common features between humans and animals. Animals are seen as something different than human beings and are therefore considered inferior. However, animals are not necessarily as different to human beings as we might believe. Fish are a good example of this and how abuse is legitimised. Fish completely differ from human beings in several different aspects; they live in a different environment, they are cold blooded, and their appearance is different from that of humans. A common misunderstanding is that fish therefore do not feel pain. Due to the misunderstanding, catching a fish and releasing it back into the water when

fishing is seen as a humane act. However, fish do feel pain in the same way as human beings do and the act of catching and releasing fish harms and hurts the fish. Fish are complex social and cognitive beings that live social lives, choose a companion and plan their everyday life. They are also able to transfer skills from one to another and use their memory. Even though fish and human beings differ on the outside, the inside are more similar than we may think. Similar features are our reaction to pain, we both have the language centre of the brain on the left side, we both are usually right handed, and we are both able to utilise tools. However, it is also important to recognise that using similarity as an argument for not abusing animals also legitimates abuse against those who are different (Sollund, 2008).

A second way of explaining speciesism is through distance. Animal abuse is connected to human closeness and morals, with the responsibility diminishing with distance. Marine animals are clearly distant from us: they live under water and human beings do not. The distance between marine animals and human beings are therefore as distant as possible. The marine animals are seen as 'the others' that stand in contradiction to us. It may therefore be easier for us to subject them to issues like plastic in the ocean as it only hurts them and not us. Animals out of the water live in the same environment as us, and if their environment is polluted or harmed so are ours. When the marine environment is harmed, our environment is not. Because marine animals are so distant from us and their issues do not affect us, it may be the reason as to why green criminology has not studied these issues as much (Sollund, 2008).

Another way of explaining distance is through technology. The development of technology is creating a physical distance that may facilitate speciesism. Technology creates a distance were moral indifference and responsibility is further and further away. By maintaining distance and minimising contact with animals, we cannot see how they are treated, and it is therefore also easier to view them as objects rather than animals. Killing animals is outside of most people's moral actions and is something most people would not do. However, with the increase in technology we no longer have to see them or see how we are treating them. They become 'just animals' and/or objects we use (Sollund, 2008). Fishing gear is abandoned, lost or dumped at sea all the time; when the fishing gear is alone at sea it is called ghost fishing. Any man-made contraption designed to catch fish are capable of ghost fishing. Marine animals are caught in the fishing gear and die, which in turn attract foragers which will also be caught in the same net and die, creating a vicious circle of harm and death. As we no longer keep track of the fishing gear, we therefor also cannot see the atrocities that take place due to our actions.

The fishing gear has created a distance between us, and moral indifference and responsibility. As we cannot see how the marine animals are harmed by the fishing nets, it is easier to view them as objects and 'kill' them (Ghost Fishing, 2019).

A third way of explaining speciesism is through denial. Atrocities are sometimes denied even though we know that they have happened. The truth and the news are blocked out of our consciousness. When people work together, the denial is even stronger. Cooperation relates to inclusion and exclusion, and the denial will be shared among the group members. This increases the gap between the group and the subjects; this further facilitates the change from object to victim and from actor to perpetrator. If we neutralise or minimise the actions or direct our attention away from the actions, we fool ourselves to believe it is not happening. When horrible events happen, a well-known and well-used defence mechanism is to repress the information and the feelings it stirs in us. In order to protect ourselves, it is easier not to know about the issue. For example, the issue of plastic in the ocean. Even though we know that plastic in the ocean harms and kills marine animals and marine environments, not enough actions have been taken yet to combat the issue. This may be because we deny the extent of the issue. Another form of denial is through cultural denial or collective blindness. People may believe that so many people are taking part in the abuse that if one person changes, it will not accomplish anything (Sollund, 2008). Because so many people around the world are using plastic, one may feel that even if one person stopped using plastic, it would not affect the issue nor save the marine animals or accomplish anything.

As humans choose to distance themselves from the animal abuse or deny that it is happening, it is difficult to find an approach to promote animal protection. The goal of animal protection is, and should be, to prevent and minimise pain and suffering as much as possible no matter the species, race or sex of the sufferer (Sollund, 2018). However, the issue of plastic in the ocean has largely affected marine animals and their environment rather than humans and their environment. Humans have therefore not felt the same pressing situation that animals do. This begs the question of whether we would have done more to stop the issue if it had affected us? Would we have done more if the distance between humans and marine animals was smaller, the difference between us was smaller, or if denial had not been in place? Now, as researchers and scientists are starting to study the impact plastic has on human beings, the amount of attention the issue receives has also increased. My analysis showed that 2017 was the year that newspapers really started to publish stories about the issue. This also coincides with the pub-

lishing of an investigative report finding microplastic in 83% of all the tested tap water and stating that plastic in the ocean have started to affect human life as well as marine animals (Tyree & Morrison, 2017). In 2018, microplastic where found in human beings for the first time and more and more scientists are now looking at the issue of plastic in the ocean and how it affects humans and damages human health (Keskitalo, 2018; Johnson & Keskitalo, 2018).

Connecting the theory of speciesism with my previous section about the power of the media (6.2), the media can help diminish distance, debunk portrayals of difference and consequently also prevent denial. The more they report about the issue of plastic in the ocean and how it affects the marine animals, we will not feel that distant from the issue anymore. It will be on our mind constantly, forcing us to not be able to deny the issue and consequently also care. If the media report on animal suffering, we will not think that we are that different anymore. As those mechanisms of denial are debunked, the effects it would have on us would be positive. My analysis shows that plastic affecting marine animals is the topic the newspapers write the most articles about, as well as being one of the topics that grew the most between 2015 – 2016 and 2017 – 2018. However, the number of articles is not enough and the number of articles on the topic of plastic affecting marine animals between the different newspapers differ too much. Having all newspapers writing more articles about the issue could cement the issue as an issue of animal's abuse forcing us to see the atrocities, and not be able to deny it, resulting in a positive effect on us as well as on the marine animals and the issue itself.

6.3.3 North-south divides and the global recycling trade

The third green criminological theory I look at is the north-south divides. The globalisation of trade has reshaped our interconnectedness and we can now reach the whole globe via services, goods and technologies. Barriers are broken down and borders are open to global transference. However, this has also allowed for transference of harm. Transference refers to something moving from one place to another, and in this case, what is being moved is harm. Examples of transference of harm is medical waste, hazardous waste, shipbreaking, and recycling of e-waste to name a few. The global recycling trade and plastic waste are also an example relating to the issue of plastic which I will look closer into (Heckenberg, 2010).

The transference of harm is also shaped by the north-south divide. The colonial times left behind a legacy where the colonising countries where situated in the global north whilst the co-

lonialised countries where situated in the global south. The division between the colonisers and the colonised unevenly distributed the political and economic power between the global north and the south. The uneven distribution of power has also left the global north – mainly the US and the EU – in power of the legal framework. Consequently, if the environmental consequences of such legal framework affect the global south, they are often overlooked. Even when the countries in the global south have refused to accept the legal framework, they are often forced to comply with the framework due to the superior power of the northern countries (Aas & Goyes, forthcoming).

A huge issue with the north-south divides is the global recycling trade where the global north is sending their waste, and their plastic waste, to the global south in a dynamic allowed and promoted by the law. Recycling is an important process which can be harmful if not done correctly. Collection companies collect waste before they sort it and sell the valuable waste to a manufacturer that needs the material for their products. However, plastic is one of the most difficult materials to recycle, and there are several different types of plastic that all need to be separated and recycled in different ways. Most often the waste is sent from the global north to the global south, transferring the harm of hazardous waste and toxins. Plastic bottles for example, go through several steps of cleaning, washing and melting before the plastic are made into pellets. However, if not done correctly, the process can emit hazardous chemicals into the air. It is possible for the whole process of recycling to be done environmentally friendly by treating the wastewater correctly, disposing of the harmful chemicals properly and making sure that hazardous emissions do not occur. Doing the process environmentally friendly also uses less energy and resources but take potentially more time and money. It is therefore easy for companies to take shortcuts to save money and time. However, these shortcuts can be devastating for the environment, animals and humans alike; consequently, having plastic waste end up in landfills and the ocean. As most of the waste is sent to the global south, they are the ones to experience the harm (Hook & Reed, 2018).

Since the start of the 1980s recycling has been promoted as an environmental option to the ever-growing amounts of trash making recycling into a $200bn industry globally. At the centre of this industry is the global trade where waste is shipped all around the world. The G7 countries (Canada, France, Germany, Italy, Japan, the United States and the United Kingdom), the global north, are responsible for the majority of the export of waste. The Asian countries, part of the global south, are receiving most of the waste. The global north is trans-

ferring the harm of their waste to the global south. China received a huge part of the waste, and the recycling companies in China made a fortune due to the cheap labour and little environmental regulation. However, at the end of 2017, with an effective start at the beginning of 2018, China decided they would no longer be a part of the global recycling trade; a huge part of the waste they received were hazardous and a massive threat to the environment. They decided they would no longer expose their environment and their citizens to such a threat and 'banned' harmful foreign waste. However, as China was a huge part of the global recycling trade, the industry collapsed, and the prices fell drastically. With the new 'ban', China did not want to be seen as the 'world's dumping ground' and would no longer accept the global north transferring their harm to them. The waste had been doing serious harm to their groundwater, their air and had huge economic costs for their environment, which China now wanted to clean up. Even though China was serious about cleaning up their environment, they still accepted their own hazardous waste and referred to it as 'resources', even though it may be as dangerous as the waste they used to buy from other countries (Hook & Reed, 2018).

Before the new waste policy in China was implemented, China and Hong Kong were buying 60% of the plastic waste from the G7 countries in the first half of 2017. After the new policy, they were buying less than 10 per cent of the plastic waste in the first half of 2018. Even though China still accept some plastic waste, the new policy expects a higher level of cleanliness which is so high that it has been referred to as a ban. Following the China 'ban', the trade pattern has changed drastically. A huge part of the waste which would previously flow into China, now flows into south-east Asia or is left in the country of origination, building up huge piles of waste. Malaysia have now become the biggest importer of plastic in the world, Vietnam has doubled its waste import between 2017 and 2018. Indonesia's import of waste has increased by 56 per cent and Thailand are now importing 1370 per cent more waste. However, these countries do not have the necessary waste management systems to handle the amount of waste now imported into the country. The waste is therefore not handled correctly and/or ends up in landfills. The ban has led to a crisis in the global recycling business, with businesses losing a lot of their revenue and companies having to revert to 'old methods' of sending their waste to landfills. In the first half of 2018, the US exported 30 per cent less plastic waste than the first half 2017. Much of the excess waste are now sent to landfills. Since the implementation of the China 'ban', the cost of recycling programmes has estimated to have tripled. It has been a wakeup call for the global north, as they have been forced to see that recycling is not free but rather quite expensive. Neither did the global north have the proper waste manage-

ment systems in place to handle all the waste that would now stay within the country, hence much of the waste ending up in landfills (Hook & Reed, 2018).

With the introduction of the China 'ban' the global north was, and still is, in dire need of a better waste management system. In 2018, Norway introduced a new proposal to the UN to change the Basel Convention. The proposal would regulate more of the waste trade to try to get better control of the flow of hazardous waste (UNEP, 2018). If the proposal is approved, shipments of plastic waste and other 'dangerous' materials would need approval from the recipient country before shipping. As of now, a lot of the shipped waste is mixed and contaminated which makes the waste difficult, if not impossible, to recycle; mixed and contaminated waste therefore often ends up in landfills and in the ocean. The proposal would force countries to separate their waste, as it would be harder for countries to send contaminated and hazardous waste to other countries. This would force countries to consider about their environmental impact, as dangerous waste and difficult materials to recycle would be less likely to be accepted. The proposal has gathered support from several countries, e.g. China, South Africa, Kenya, Switzerland and Indonesia. However, some countries are against it, e.g. EU, Canada, Japan and Australia (Cole, 2018), and organisations like the Institute of Scrap Recycling Industries. The Institute of Scrap Recycling Industries claim the proposal would decrease trade and open the door for introducing even more restrictions. They also claim that it would hurt countries in the global south as they do not have the capabilities to set up satisfactory waste management systems (Hook & Reed, 2018). However, it is the G7 countries that are the biggest exporters of waste, not the countries in the global south. It would therefore arguably hurt the G7 countries more. The G7 countries would further be 'forced' to implement waste management systems in their own country, consequently recycling more plastic and hazardous waste. Thus, less plastic would end up in landfills and in the ocean.

China's policy has had a huge effect on both the global north and the global south. The policy is forcing the global north to do more of the 'dirty' jobs themselves, whether it is cleaning the waste before sending it abroad or building their own facilities and factories for recycling in their own country. More than half of the plastic produced is disposable and single-use plastic. To further reduce the unnecessary waste, the global north must change their ways and rethink packaging with recycling in mind. More of the packaging can be reusable and double-packaging can be stopped. Even before China's policy to stop importing hazardous waste, the US was only recycling 10 percent of their plastic waste. There clearly is room for huge im-

provements and China's policy may be the wakeup call we needed to change and improve existing (or lack of) systems. If waste management systems are improved, more plastic can be recycled instead of ending up in landfills harming the environment and the ocean consequently also reducing the issue of plastic in the ocean (Hook & Reed, 2018).

A study by Schmidt, Krauth and Wagner (2017) found that 90 per cent of all plastic are transported into the ocean by 10 rivers. 8 of these rivers are in Asia while the two last ones are in Africa. However, as I have just shown the global north are responsible for most of the export of waste into Asia and Africa even though they are aware of the lack of necessary resources and systems to safely dispose of the waste. Still we send our waste to countries in the global south and 'blame' these countries when our waste ends up in the ocean and landfills. This phenomenon can also be seen in Norwegian newspapers, where it seems like we deny our involvement in waste ending up in the ocean or being 'wrongly' disposed of. Newspapers point to the Sotra Whale having plastic bags from Denmark and England in it (Ertesvåg, 2017). According to Norwegian newspapers, the plastic waste on the Norwegian shores are not the Norwegian people's fault either. The Norwegian people are just 'innocent victims'. Most of the plastic found on the Norwegian shores are, according to a newspaper article, from England, France and Belgium. As the newspaper states: 'Norway has become an innocent victim due to the location of the country. Much of plastic do not come from Norway. It is from England, France and Belgium" (Moe, Øystese & Reikerås, 2017).

Whereas the media can be a positive force helping to fight speciesism and creating awareness, the media are not that conscious about the north-south divides. My analysis showed that the topic of 'trash abroad' was not a topic the newspapers wrote many articles about, actually being the topic with the least number of articles in both 2015 – 2016 (0 articles) and 2017 – 2018 (8 articles). By omitting writing about the north-south divides, the media may end up reinforcing policies of harm transfer.

7 Conclusion

In this master thesis I have looked at the issue of plastic in the ocean. I focused on how newspapers have reported on the issue in the last four years, between January 2015 and August 2018. I have gathered data from three different newspapers and analysed all their articles on the topic in the given time period. The research question for this project has been as follows:

How have the representations of plastic in the ocean in the Norwegian newspapers changed in the past 4 years?

The following research aims has also been studied:
How is plastic represented in the Norwegian media nowadays? How was plastic represented in the media 4 years ago? When and why did a transformation happen? What legislative repercussions has the transformation seemingly had on the way Norwegian newspapers represent the issue of plastic in the ocean?

Chapter 5 and section 6.1 both looked to specifically answer my research question and research aim. These sections of my thesis were divided into each of my research aims and looked at how my analysis could answer these.

In chapter 6 I looked at classical theories in green criminology and connected them with my findings. In section 6.2 I looked at the power of the media and how we are affected by the media. The media is a dominant source of knowledge and a lot of the knowledge we have on an issue is based on what we have heard and/or read in the media. By putting a certain topic on the agenda and writing more articles about it, it will also be perceived as more important by the public. As I showed with the issue of plastic in the ocean, the number of articles written by the media increased significantly after the transformation, 2017. The number of people participating in beach clean-ups and other forms of combating the issue of plastic in the ocean, also increased after the transformation. This shows how important the media is, not only for conveying knowledge about the issue, but also in affecting us to care and act about the issue.

Chapter 6.3.1 looked at Lynch et al. and their concept ‘treadmill of crime’. It looks at how environmental harms may be caused by capitalist structures. However, in their search for the highest production and profit, the environment is harmed, ecosystems are destructed, and the

natural process of ecosystems and biological systems are altered. Plastic is a material that will never disappear but will be broken down into smaller pieces and therefore stay in our biological system and ecosystems forever. It also contains harmful and hazardous toxins which harms the environment. However, plastic is a cheap material to produce, and it is therefore used in several objects even though the harm it does to the environment is well known. This shows how our capitalist structures and economic gains dictates how we are spending our limited resources and harming our ocean and its inhabitants at the same time. Connecting the treadmill of crime to the power of the media, the focus of the media could affect the economic forces of plastic production negatively. If the media focus on the long-term effects' plastic has on the environment, it could impact the plastic production's reputation which would decrease their sales and force them to focus on environmental options such as recycling.

Chapter 6.3.2 looked at the green criminological theory of speciesism. I explored there how we tend to favour our own species over other species. We view animals as different from human beings based on their looks and the difference in environment, however, research shows that we are not as different as we may believe. Fish, for example, are also able to feel pain, are social beings, choose a companion, and can use tools just as human beings. Marine animals are also clearly distant from us, as they live under water whereas human beings do not. Due to the difference in the environment we and the marine animals live in, some issues have seemingly only affected the marine animals and not us, such as the issue of plastic in the ocean. Connecting the theory of speciesism to the media, the media can help diminish distance, debunk depictions of difference and therefore also prevent denial. If the media report on the issue of animal abuse, we will not feel so distant from the issue anymore, consequently also not thinking about the animals as different to us. Shedding a light on the issue of animal abuse consequently have a positive effect on the issue.

Chapter 6.3.3 looked at the north-south divides and the global recycling trade. Globalisation has made the world 'smaller' and we are now all interconnected. However, this has also allowed for the transference of harm. An example of transference of harm is the global recycling trade and plastic waste. Most of the world's waste end up in the southern parts of the globe, while a lot of the waste is made in the northern parts. However, a lot of the waste is hazardous and if not handled correctly will emit dangerous toxins. Even though the global north knows that the global south does not have the necessary waste management systems in place, they still send their waste to them, transferring their harm and exposing them to dam-

age. However, the media is not conscious about the north-south divide. The topic the media wrote the least about in my analysis, was the topic of 'trash abroad'. By omitting to write about the north-south divides, the media may end up reinforcing policies of harm transfer.

7.1 Possible solutions and the future

In this section I will introduce three possible solutions for the future: (1) viewing animal abuse the same as towards humans; (2) improving the legislative framework; and (3) increasing the attention from the field of criminology. Human beings often choose to distance themselves from unpleasant experiences and actions. This is also the case of animal abuse, where people will deny that it is happening, and it is therefore difficult to find an approach to promote animal protection. The people who directly or indirectly profit from the industries associated with animal abuse, are obviously against the promotion of animal protection as it would decrease their profits. However, the goal of animal protection is and should be that pain and suffering is bad and should therefore be prevented and minimised as much as possible no matter the species, race and sex of the sufferer. A first step in this direction could be to view animal abuse on the same level of harm as abuse against humans, and consequently view animal abuse as a crime (Sollund, 2008).

The second solution I propose is improving the legislative framework. My work opened two new lines of research to be explored: (1) a new line of research for green criminology on marine issues; and (2) the potential use of global agreements to prevent plastic in the ocean. The current legislative framework is fragmented and is too easy to circumvent (see chapter 2 'context'). Existing protocols have loopholes, some have low state participation which reduces its usefulness significantly, some are only recommendations, whilst others are limited to only certain types of plastic and pollutants (UNEP, 2017b). The same is the case in Norway; legislative activity is relatively low, and most of the laws and regulations do not mention plastic directly, but it could be regulated under these overarching laws about the environment and the climate. However, this also prevents them from having the effect that they should have.

The ones who profit the most from the issue of plastic in the ocean are arguably in the plastic industry. In the last couple of years, the plastic industry has slowly started to recognise the impact their products have on the marine environment and the marine animals, even though they have yet to fully acknowledge the impact they have. The industry is working with non-governmental organisations [NGO], government authorities and scientists to understand the

issues and to find a solution all parties can live with. Millions of dollars have been invested in waste management systems, recycling systems and clean-up programs. An example of a program presented by the plastic industry is the 'Marine Litter Solutions'. It aims to increase clean-ups of ocean pollution and prevent marine litter through encouraging and increasing recycling, recovery and partnerships. Since its start in 2011, 69 plastic organisations have joined the Marine Litter Solutions program. Another project is 'The Virtuous Circle' which aims to find solutions to multilayer packaging and plastic packaging that is difficult to recycle. However, there is room for more recognition of the issues of plastic pollution from the plastic industry by increasing concerns for microplastics and chemical toxins (UNEP, 2017b).

At the moment there is an interesting ongoing development internationally where countries try to work toward a new global agreement based on the recommendations from UNEP's resolution on marine litter and microplastics. The resolution's goal is to prevent and significantly reduce marine pollution of all kinds by 2025. The increasing levels of marine plastic waste are having increased negative effects on marine biodiversity, animal's wellbeing, and ecosystems. Therefore, UNEP calls for a strengthened knowledge on the effects of plastic waste, microplastic and nanoplastic have on marine ecosystems, marine animals and human health. It also notes that natural disasters and the increase in their severity cause a lot of marine waste to end up in the ocean. Preventive actions through minimising waste and environmentally friendly waste management should be on the agenda for every country. With the current trend of increased production and use of plastic in products and packaging, reducing marine plastic pollution is challenging. All countries and industries should therefore responsibly use plastic, reduce unnecessary plastic and promote the use of environmentally friendly alternatives. Every member state of the UN should implement the recommendations of UNEP's resolution and to cooperate to establish common guidelines and standards. We should develop and implement actions to prevent marine waste and microplastic and implement national and local waste management systems and wastewater treatment. Marine waste poses a significant threat to marine animals, marine environments, biodiversity, and human health. If we are able to eliminate the discharge of waste and toxins to the ocean, we can avoid loss of the marine ecosystems and other negative consequences. It is therefore very important that all countries and organisations take part in the resolution and contribute to our shared future. If the 'world' decides to follow the resolution it may have repercussions nationally so that more and more countries implement new laws and regulations targeted towards marine waste littering (UNEP, 2017c).

Not only do we have to implement more effective laws and regulations on the issue of plastic in the ocean, we also must make this issue the focus of the attention of researchers, politicians, and laypeople. While other fields have studied the issue for several years, criminology has so far failed in this task by neglecting the problem of plastic in the ocean. My third solution is therefore more attention for the field of criminology. As I have stated the importance to research the issue in order to combat it, I have tried to bring this topic into a criminological light hoping that it will be the beginning of more, and hopefully larger studies.

Word count: 25 359

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Appendix A: List of abbreviations

Norwegian	Abbreviation	English Translation
Påvirkning på dyr	PPD	Impact on animals
Søppelhåndtering	SH	Waste management
Mulighet for å fikse problemet	Fiks	Possibilities to fix the problem
Hvor kommer plasten fra	Hvor	Where does the plastic come from?
Skylder på andre enn oss	SA	Blame others
Selvskryt	SS	Selfpraise
Strandrydding	SR	Beach clean up
Plast i havet	PiH	Plastic in the ocean
Plasthvalen/Sotrahvalen	PHval	The plastic whale/Sotra whale
Mikroplast	MP	Microplastic
Storbritannia	UK	United Kingdom
Plastpose	PP	Plastic bag
Plastposeavgift	PPavgift	Plastic bag tax
Plastposeforbud	PPbud	Plastic bag ban
Oppdrettsnæring	ODN	Breeding industry
Norge	N	Norway
Bangladesh	B	Bangladesh
Vi må bli plastfrie o.l. setninger	Plastfri	We must be free of plastic and similar sentences
Engangsplast	1P	Disposable plastic
Politisk interesse	PI	Political interest
Statsminister	PM	Prime minister
Forurensning	F	Pollution
Ballongforbud	Bbud	Balloon ban
Miljøproblem	Mprob	Environmental issue
Plast i dyr	PiD	Plastic in animals
Kunstgressbane	KGB	Artificial turf
Gjenvinning	RE	Recycling
Ocean CleanUp project	OCU	Ocean CleanUp project
Fiskerinæringen	FN	The fish industry

Landbruket	LB	Agriculture
Plast kan påvirke mennesker gjennom maten vi spiser	PPM	Plastic may impact humans through the food we eat
Kan ikke unngå alle miljøulemper	MU	Cannot avoid all environmental disadvantages
La hundebæsj ligge o.l.	HB	Leave the dog poop and similar sentences
Solkremforbud	Sbud	Sunscreen ban
Engangsbestikk	1B	Disposable cutlery
Økende funn av plast/mikroplast i havet og dyr	OP	Increased discovery of plastic/microplastic in the ocean and animals