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Animal Protection vs. Species Conservation

An analysis of Clare Palmer's theory about moral consideration of wild animals in relation to wildlife management and alien species

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Content

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1 Introduction – Invasive alien species in New Zealand

1.1 The sixth mass extinction

Facing the current species extinction crisis (Eldredge 2005) might be a very tough task for humankind in two ways; on the one hand it might be hard to accept the loss of species and on the other hand it is difficult to develop effective methods to counteract this loss, as many conservation efforts fail[1]. Especially the admission, that in practically all cases human activities are the reasons for species extinction, might be a very hard confession for many people. Balmford estimates that the annual loss of animal and plant populations and the habitats to which they adapted is 1% (Balmford et al. 2003, p. 328). It even reached such an extent, that scientists title the current period "the sixth mass extinction" (Eldredge 2005). The species extinction rate[2] is at the highest peak since millions of years. According to E.O. Wilson's estimation, we currently lose approximately 50,000 species per year, that equals six species per hour (Wilson, 1993, p. 253). Unlike the former five mass extinctions, the current one is the first biotically caused (by humans) mass extinction. The four major human-caused reasons for the sixth mass extinction are landscape modification, exploitation of other species, the environmental pollution and finally the relocation of species which might become invasive species in foreign ecosystems (Eldredge 2005). The last point ─ invasive alien species ─ and the moral investigation of this *problem*, will be the main issue of this thesis.

The current extinction crisis shaped most people's common-sense attitude in favour of wildlife management. Species conservation arguments are often more convincing for society than

[1] Species conservation is such an extensive project, including beside biology and wildlife management studies also in particular economics, politics, ethics and social science. Consequently, there is high potential that some conservation effort could fail in one or another way. Balmford and Cowling states in this context that "[…] it is clear that although we may be winning a few battles, we are still losing the war" (Balmford and Cowling 2006). This statement about the failure of conservation biology may sound pessimistic, but it is a rather realistic picture, if we compare the species loss with the successes in conservation biology. As this notion does not play an essential role in this thesis, I will not further discuss the resulting ethical questions.

[2] Please note that species includes all form of life (animals, plants, fungi, ect.) not just animals like it is common in animal protection. However, the extinction of a plant could also have negative effects on animals, which is therefore also indirectly relevant for animal protection.

animal protection arguments (Rippe 2008, p, 208). The following example should serve as visualisation of the conflict between species conservation and animal protection: the management efforts to save a New Zealand's parrot ─ the kakapo (*Strigops habroptilus*) ─ from extinction.

1.2 The situation in New Zealand

One of the most popular birds of the New Zealand's avifauna is the kakapo (*Strigops habroptilus*). The kakapo exerts the fascination of many scientists and conservationists, not at least because of the often called (also by scientists) "peculiar", "enigmatic" and "weird" characteristics of this parrot like the loss of the ability to fly, the nocturnal activity, a honey-like odour or the lek-breeding behaviour[3]. The major threat for those birds are introduced mammal predators, which put immense predation pressure on the birds (Clout and Merton 1998). As the fauna in New Zealand evolved almost without mammals (apart from two small bat species), especially birds react relatively naïve towards introduced mammal predators, which trigger almost no flight reaction with fatal consequences in most cases for the birds (Clout and Merton 1998). Non-native species reached the islands of New Zealand, which were discovered relatively late by humankind, through the assistance of humans. The first human settlement was in 1280 by Polynesian people (Maori) (Wilmshurst et al. 2008) followed by a second wave of human settlers (Europeans) in 1840 (Duncan and Young 2000). Humans intentionally and unintentionally introduced many foreign species, especially mammals to New Zealand like cats, stoats, dogs and rats. These species introductions had and still have detrimental effects on the native fauna and flora (Bellingham et al. 2010).

Since the native fauna and flora is at risk of getting lost in New Zealand, humans took the initiative to counteract this dramatic loss of native species. Especially the desire to conserve the charismatic kakapo, was a considerable reason for wildlife conservation projects. Already 1891 New Zealand's Government dedicated Fiordland as a nature reserve (Bellingham et al. 2010). Between the years 1894 and 1900 the conservation scientist Richard Henry began to catch and transfer hundreds of kakapo from Fiordland to Resolution Island (Hill and Hill 1987).

[3] Lek-breeding behaviour is unique for kakapos among parrots. To attract females, male kakapo constructs a "booming arena" where they start to emit low frequency calls, which can be heard up to five kilometers. Several tracks lead to the booming arena, which are kept clean and intact by the male (Kākāpō Recovery and DOC 2016). Kakapo usually breed only every 2─4 years, mostly in connection with a mast year of the rimu tree *(Dacrydium cupressinum*) (New Zealand Birds Online 2013).

Unfortunately, the first attempts of saving the kakapo went wrong. Most kakapos died due to predation but also due to efforts of saving them, like the technique of "marooning" [4] (Clout 2006; Clout and Merton 1998). Eventually the kakapo population has declined to a total number of 54 individuals in 1997 (Clout and Merton 1998). The remaining kakapos originate from a relict population from habitats which were inaccessible for predators, in Fiordland and Steward Island. Before the Steward Island population, which also included female birds, was found in 1980, the conservation of the kakapo seemed hopeless, because the Fiordland population (found in 1977) consisted only of male birds (Clout and Merton 1998). Now just one parrot of the Fiordland's relict population is left, named "Richard Henry" after the first conservationist who was concerned about the survival of the kakapo around 1900.

Scientists faced many problems and challenges in conserving the kakapo, like the very low reproduction rate, inbreeding depression, low hatching success (42%) (Elliott et al. 2006) and the very complex lek-breeding behaviour (Merton, Morris, and Atkinson 1984), to mention only a few. Due to the dangerously small population in the 1970s, conservationists feel responsible for the recovery of the kakapo population.

The idea of a predator-free island was the beginning of series of eradication programs on several islands followed by translocation of kakapo to the *safe*[5] islands. The translocation of the last *natural* kakapo population led to the IUCN Red list classification of the kakapo as "extinct in the wild", since 2000 the kakapo is listed as "critically endangered" (IUCN 2016). All known individuals got radio-tagged and moved to one of the main refuge islands for kakapo: Codfish Island (Whenua Hou) or Little Barrier Island (Hauturu-o-Toi)[6] (Clout and Merton 1998; DOC 2014).

Although there are many differential alien species that constitute a risk to the New Zealand's avifauna, I will focus on two representative species for the further moral investigation: the rat as invasive alien predator and the kakapo as threatened native bird. This limitation should improve the comparability of different attitudes toward these animal species and the different moral considerations. In the course of the discussion (Chap. 4 Discussion, p. 69), at the end of

[4] "Marooning" is a conservation technique of implementing animal translocations from one to another habitat, which seems to be a more promising habitat for the survival of the animal species.

[5] Most losses of nestlings in the 1990s can be attributed to predation on allegedly "predator-free" islands, which implicates that there is in fact no "predator-free" island (Clout and Merton 1998).

[6] Another predator-free island, where temporary kakapo are brought is Maud Island (Clout and Merton 1998). This island is the only offshore island, which is within the swimming range of stoats, and therefore less safe for the birds.

this thesis, I will reinsert the result of my moral investigation in the overall picture of New Zealand's fauna, in consideration of other exotic and native species.

By 2010 almost 65 islands were cleared from rats (Bellingham et al. 2010). The eradication of rats is performed primarily by using aerial poisoning drops amongst other methods (Bellingham et al. 2010). Invasive animal detection is seen as a very crucial part of wildlife management in New Zealand, even trained dogs are deployed for detecting non-native mammals (Bellingham et al. 2010). Although there is prevalent support for the eradication of rats and other alien species in New Zealand, there are also opponents of this practice for instance animal rights advocates. For a better understanding of the conflict-ridden practice of eradicating a lot of non-native rodents in order to save an endangered species, allow me to speculate for "arguments sake" by reconstructing the number of rats on New Zealand. Based on the result of study by Brown et al., which reveals that there are 6.5─7.8 rats/ha we assume that there theoretically could be a total number of approximately 190 million rats on the total surface of New Zealand (calculated by a mean value of seven rats / ha) (Brown et al. 1996). Taking the specific example of the main kakapo refuge islands, where eradication programs were implemented, we get a result of 9,000 rats on Codfish Island and 21,500 rats on Little Barrier Island. These numbers seem little in comparison with the total rat population in New Zealand, but one should keep in mind that these examples represent only two of 65 islands, where rats have been eradicated.

A very important point to mention here is that even if an island is declared as predator-free, there is always the risk of reintroduction. There were 36 instances of reintroduction of rats on cleared islands over the course of almost 60 years (Bellingham et al. 2010).

Due to these island restoration programs, particularly between 1960 and 1980, the public concern began to arise and the desire to participate more actively in the conservation of New Zealand's fauna and flora increased as well (Rimmer 2004). Soon New Zealand was considered as the international expert of island management (Krajick 2005; Rauzon 2007) and New Zealand engaged in eradication programs all over the world in order to improve the public awareness about the effects of invasive species on islands (Bellingham et al. 2010).

Many scientists try to face the problem caused by so called exotic "pest species" with a huge variety of conservation measures, which are partly a highly debated topic in the scientists' community and particularly amongst philosophers, since the methods of attempting to conserve a species from extinction is rarely compatible with the animal protection body of thought

(Callicott 1980; Sagoff 1984; Varner 2003). The conflict between species conservation and animal protection[7] opens up a new field of questions.

Soon most philosophers of either the environmental view or the animal liberation view share one consensus, particularly that environmental ethics and animal liberation movement are two incompatible philosophical approaches, which are impossible to reconcile (Varner 2003). Nevertheless, there are philosophers, who try to find a bridging theory, which embraces values of holistic and sentientistic ethics, or at least try to reduce the conflicts between AP and SC (Jamieson 1995, p. 70). Especially Jamieson proposed an interesting theory of reducing the conflict between wildlife management and animal protection by rethinking the goals of wildlife management – for him the two main goals are the preservation of (1) diversity and (2) wilderness (Jamieson 1995, p. 70), furthermore he is also convinced by the point that we cannot erase the conflict completely, after reducing it to a minimum there will still be a remaining conflict (Jamieson 1995, pp. 70─71). Nonetheless, Jamieson proposed possibilities of how to deal with this remaining conflict (cf. Jamieson 1995, pp. 71─73).

1.3 Prospects of this thesis

After the description of the extinction crises especially in New Zealand, I want to give a short outlook for the topics I will deal with and further procedure with the goal to create a respond to my hypothesis (see below or Chap. 3.1 Hypothesis, p. 23).

I consider Clare Palmer, a British philosopher (who currently lives and works in Texas, USA) who deals with the ethical consideration of wild animals, and furthermore tries to close the gap between environmental and animal ethics approaches a little more (Palmer 2010, p. 166) to be a philosopher with great potential for the debate about reconciling animal ethics and environmental ethics. In my opinion her relational approach in the book *Animal Ethics in Context* (2010) provides a very well developed basis for further discussions about the role of the individual animal in species conservation (Palmer 2010). For this reason, I decided to build a hypothesis onto the relational approach of Palmer, in order to go into the matter of combining animal ethics and environmental ethics: *The relational approach developed by Clare Palmer holds the potential to result, without valuing entities such as species, in conserving a species by protecting individual animals, since she provides a convincing theoretical framework for an adequate moral consideration of wild animals, which therefore minimizes the conflict between*

[7] For the reason of simplification of the reading flow I will use the following abbreviations:
SC…Species Conservation
AP…Animal Protection

environmental and animal ethics. In order to find a proper response to this hypothesis, I will adopt the above described example of wildlife management: The conservation effort in favour of "charismatic endangered species" (kakapo) which (apparent) necessarily include management measures to reduce the problem of invasive pest species (rat). On basis of this example I will analyse, if Palmer's contextual animal ethic approach can provide the basis for an ethical framework that is compatible with saving a species (cf. Chap. 3.1 Hypothesis, p. 23). Before I will start with this issue I am obligated to outline some fundamental conflicts and problems between AP and SC. After I clarified the fundamental problems in moral terms, I will dedicate the following chapters to describe and explain Palmer's relational approach, by highlighting the parts of her ethical framework which are relevant for responding to the hypothesis. The main part of the analysis will be a stepwise alignment of values and duties in Palmer's relational approach and values and duties in several environmental views. I will always limit my thesis to a specific part of environmental ethics – namely animal species conservation and wildlife management, in order to avoid a redundant expansion of the thesis' purpose and scope. Finally, I will end with a short discussion about the resulting response to the hypothesis. The greatest benefits of this work, in my opinion, are the ethical analyses of the interaction of alien and native species, which was until now seldom the main topic of an ethical discourse. Even Palmer, did not so far administer to the conflicting problem about invasive species. However, in particular the attempt of closing the gap between individualistic animal ethics and environmental ethics by using the progressive relational approach of Clare Palmer could further progress within the ethical discourse considering invasive alien species.

2 Fundamental Problem

Supporting the World Wide Fund for Nature or donating to Four Paws[8] may seem for most people, apart from a different organization name, at the first glance to be the same. Both organizations promote their campaigns with charismatic animal photos, and both give the public the feeling that they "do something against the suffering of animals". That there is a very fundamental normatively relevant difference behind these organisations, becomes evident after a closer look. The WWF stands for species conservation and the Four Paws pursues the protection of non-human animals[9], the different ethical beliefs behind these two ideas will be described in this chapter.

Environmental ethics and the animal liberation movement emerged nearly simultaneously in the 70s. Tom Regan and Peter Singer are the most popular representatives of the animal liberation movement and J. Baird Callicott together with Holmes Rolston III represent the most popular environmentalists of that time. Although the two positions follow very different values and views, there are also huge *internal* differences between the views of Regan in comparison with Singer and between Callicott and Rolston (Jamieson 1998), but it is not the task of this thesis to analyse these *internal* differences. Many philosophers tried to bridge the two positions in order to create an all-embracing position, in which both, animal protection and environmental conservation could fit in (Bossert 2015; Jamieson 1998; Palmer 2010). This claim deviates strongly from the commonly supported claim, that these two views are incompatible. Paradoxically, even if there is this big value conflict, SC and AP basically share common *enemies* e.g. the responsible persons for the pollution of the oceans (Jamieson 1998, p. 42). The incompatibility of SC and AP is very well phrased by Sagoff:

> Environmentalists cannot be animal liberationists. Animal liberationists cannot be environmentalists. The environmentalist would sacrifice the lives of individual creatures to preserve the authenticity, integrity and complexity of ecological systems. The liberationist – if the reduction of animal misery is taken as a serious goal – must be willing, in principle, to

[8] I am aware of the critique to both of the organizations especially the WWF (cf. Film "The Silence of the Pandas" made by Wilfried Huismann, 2011). Nevertheless, I think that those two organisations are most suitable for my example because they are the most popular environmental and animal liberation organisations, therefore let us assume that they strive for the mission they promote.

[9] Commonly the term "animal" is referring to animals that are not humans. For this reason, the term might be problematic in a work on animal ethics, because it would create the impression that humans are excluded from being animals, what is biologically not correct, because humans are mammals and therefore animals. I am usually eager to use the term "non-human animals" in order to prevent the feeling of creating a moral line between humans and non-human animal. Nonetheless, in some passages of this theses, the term "non-human animal" would hinder a good reading flow, therefore I used the term "animal" in the sense of "non-human animal".

> sacrifice the authenticity, integrity and complexity of ecosystems to protect the rights, or guard the lives of animals. (Sagoff 1984, p. 42)

The major difference between environmental ethics and animal ethics is, like Sagoff described in the citation above, that in environmental ethics entities, like species (of animals, plants, fungi and even bacteria), populations or ecosystems, are of moral concern, unlike in animal ethics where philosophers are most worried about the welfare and rights of the individual animal.

Environmental ethics is characterized by an holistic view, thus philosophers, who advocate environmental ethics are primarily not concerned about injuries, suffering or death of non-human animals, but about the "health of a population", which consists of these individuals (Callicott 1999, p. 59). Values are only ascribed to entities, not to the individual tokens, which compose such entities. The individual animal is considered in environmental ethics as the *instrument* for the survival of the species. Environmental ethicists would regard the killing of invasive alien species as a prima facie obligation (Varner 2003, p. 109).

Individualistic animal ethics[10] in contrast to environmental ethics is mostly based on a sentientistic view. Advocates of this view are definitely concerned about injuries, suffering and pain-involved death of the individual animal. The capacity to suffer is in common animal ethic approaches (utilitarian, deontological but also context-sensitive approaches) the criterion to be considered as a member of the moral community which makes individuals therefore valuable. Killing of individuals of an invasive species in order to conserve individuals that are threatened by those invasive animals is considered as something condemnable from an individualistic animal ethic position (Rippe 2008).

The best way of portraying these two different implicit theoretical frameworks is an analysis of SC and AP, because in both issues animals are involved. For this study, an environmental-biased focus on species conservation can provide a better basis for the comparison, than focusing on all complex aspects of environmental ethics. Therefore, in the course of this thesis I shall limit the aspect of environmental ethics to mostly SC, in order to provide a clear and simple comparison of the philosophical conflict. Further (but doubtless essential) practical actions that are interlinked with an environmental ethical view, which are in favour of a stable

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[10] Moral individualism is a thesis about the justification of judgements concerning how individuals may be treated. The basic idea is that how an individual may be treated is to be determined, not by considering his group memberships, but by considering his own particular characteristics. If A is to be treated differently from B, the justification must be in terms of A's individual characteristics and B's individual characteristics. Treating them differently cannot be justified by pointing out that one or the other is a member of some preferred group, not even the 'group' of human beings. (Rachels 1990, p. 173─174)

ecosystem like habitat restoration, countermeasures against all kinds of pollution or establishment of nature reserves, will be mentioned marginally.

For a better understanding of the fundamental problem, I will start with a description of the two different intentions and substantiating arguments behind AP and SC.

2.1 Animal Protection

The moral consideration of every single individual, which have the capacity of suffering and feeling pain is deeply rooted in the idea of AP. The capacity to suffer is therefore the most common argument for protecting animals in animal ethics. Other arguments for the protection of animals are for instance the capacity of social-cognitive skills (which are similar in humans) e.g. in whales or great apes (Benz-Schwarzburg 2012). The animal liberation movement advocates the idea of expanding the moral community to include also some non-human animals,[11] which are able to experience pain and suffering, hence some non-human animals ought to be considered as being on an equal basis with humans in a moral community (Singer 2003, p. 57).

2.1.1 Utilitarian Approach

Singer is a proponent of the utilitarian view, particularly the preference utilitarian view, which strives for the equal moral consideration of all preferences of every individual (Singer 2003, p. 57). Singer further established a division within non-human animals into persons and non-persons, whereby the killing of a person is more problematic than the killing of a non-person. According to Singer, persons possess self-consciousness (Singer 1994, pp. 118 ─120). He does not necessarily grant rights to individuals, therefore individuals are not protected against the trump of a greater utility and thus can be sacrificed under certain circumstances, although there must be a good reason for killing. The killing of an animal without good reason (prima facie harm) is morally condemnable (Bossert 2015, p. 22). But the painless killing of a non-human animal for a good reason is, following an utilitarian view, nothing morally reprehensible per se, as Varner endorses, what he calls “therapeutic hunting” (Varner 2003, pp. 89). Therapeutic hunting in Varner’s opinion promotes the welfare of the individual animal, despite some have to be sacrificed, for the good of most other animals. In other words, the individual is exchangeable in the utilitarian approach. This implicates that the utilitarian approach is more

[11] Most animal ethic positions include mammals or further vertebrate classes, but the moral consideration of invertebrate classes still remains unclear in most animal ethic views, as the capacity of suffering of invertebrates is until now badly scientifically investigated. However, scientists prove the capacity of feeling pain in decapods (Elwood 2012), thus the capacity of feeling pain of invertebrates should not be denied innately.

compatible with conservation ethics in some cases than the animal rights view, in which it is condemnable under almost every circumstance to kill a non-human animal for a certain reason.

In the case of invasive alien animals, it is not justifiable in an utilitarian view to kill a huge number of pest species individuals in order to preserve rare bird species, because the feature "rare" or "endangered" has no moral value in individualistic animal ethics. But in case of a wild elk population, which is affected by a threatening disease, it would be justifiable in Varner's view to shoot a certain number of elk individuals to rescue the remaining elk individuals of the populations from a painful death caused by the disease. In such an intricate case, in which the infected animals would die a very painful death without an intervention and additionally pose a risk to the remaining healthy individuals, Palmer as well would suggest the painless killing of the infected individuals, if humans are responsible in the one or another way for the distribution of the disease (Palmer 2010, p. 146). This position is comparable with the "miniride principle" coined by Regan (2004, p. 305), which states that in some cases it is allowed to override the right of some individuals in order to save most.

In terms of environmental ethics, Singer states clearly, that he does not share the idea of holistic and biocentric approaches (Singer 2003, p. 60). Advocates of the biocentric view considers all living beings to be in the moral community, e.g. the environmental philosopher Paul Taylor (cf. Taylor 1986). In Singer's approach there is no place for intrinsic values for entities like species or ecosystems.

Unlike Varner, who does not reject the intervention into the wild (Varner 2003), Singer suggested to let nature be (Singer 1996, p. 361) and he defend the opinion that each attempt to interfere in ecosystems is more detrimental than beneficial (Singer 1996, p. 362).

2.1.2 Animal Rights Approach

Tom Regan claimed that some non-human animals, or rather animals, who are "subjects-of-a-life" possess the basic right for respectful treatment. To be a *subject-of-a-life*[12] implies that the individual has inherent worth. Those non-human animals ought not be regarded and treated as mere resources for humans. As Regan has also recognized, it is very hard to draw a clear line between animals, who are a *subject-of-a-life* and who are not, so he proposed, that at least, (very

[12][…] individuals are subjects-of-a-life if they have beliefs and desires; perception, memory, and a sense of the future, including their own future; an emotional life together with feelings of pleasure and pain; preference- and welfare-interests; the ability to initiate action in pursuit of their desires and goals; a psychophysical identity over time; an individual welfare in the sense that their experiental life fares well or ill for them, logically independently of their utility for others and logically independently of their being the object of anyone else's interests. Those who satisfy the subject-of- a-life criterion themselves have a distinctive kind of value – inherent value – and are not to be viewed or treated are mere receptacles […]. (Regan 2004, p. 243)

simplistically spoken, for the exact citation cf. footnote 13) "[…] mentally normal mammals of one year or more"[13] (Regan 2004, p. 78) are definitely subjects-of-a-life, but he further mentioned that birds and fish could also be candidates for this designation (Regan 2003). The moral equality and sameness, which goes along with the categorization of an individual as a *subject-of-a-life* underpins the rights which they possess. Granting such basic rights protects an individual from being sacrificed for the good of the community, hence the individual is protected against trade-offs for the utility of most individuals, which are permitted under some circumstances in utilitarian approaches (cf. therapeutic hunting Varner 2003). The individual is valuable for his[14] own sake in the animal rights view and not due to certain capacities like sentience (cf. cup analogy; Regan 2004, p. 236).[15] Like in Kantian philosophy the *intuition* of an action is what morally counts, not the *consequences* of an action, like it is the case in the utilitarian view. Regan also takes a position on the moral consideration of wild animals (Regan 2003, 2004, 2013): With regard to predator-prey relationships he states that we have no moral duty to intervene:

> Instead of advocating a policy of massive intervention in the affairs of wildlife, what we ought in general to do is…nothing. […] In my view […] our ruling obligation with regard to wild animals is to *let them be*, […]. (Regan 2013, p. 122)

When it comes to endangered species, Regan suggested that humans have a duty to assist individuals of an endangered species, because most of them are disadvantaged as a consequence of human failure (Regan 2013, p. 124). But generally in Regan's view, there is no difference between the moral treatment of species' individuals that are plentiful or rare (Regan 2013, p. 124). Regarding a conflict situation between individuals of a rare and a plentiful species like in the kakapo-rat example, it would not be justifiable to intervene in Regan's view. The rights of the individual kakapo and rat would be valuable, consequentially it would be not permissible to cull the species *Rattus exulans* (pacific rat) in order to save the species *Strigops habroptilus*

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[13] […] Unless otherwise indicated, that is, the word humans will be used to refer to all those Homo sapiens aged one year or more, who are not very profoundly mentally retarded or otherwise quite markedly mentally impoverished (e.g. permanently comatose). And, unless indicated otherwise, the word animal will be used to refer to mentally normal mammals of a year or more. [..]. (Regan 2004; p. 78)

This definition is to consider very critically, because the criterion of being a "subject-of-a-life*"* is chosen very arbitrary (cf. footnote 11 p.8). For example, the lives of a one-year-old mouse and a one-year-old Orang-Utan can never be compared, because the mouse have lived almost one-third of her live while the Orang-Utan stocks still in the childhood.

[14] In animal rights approaches the designation of non-human animals as "it" is questionable, because it could be misconceived as derogatory. In order to avoid a verbal degradation of non-human animals, I will stick to the application of the terms "he" and "she".

[15] The cup (the individual) does "contain" things (experience) that are valuable (e.g. pleasures), but the value of the cup (individual) is not the same as anyone or any sum of the valuable things the cup contains. […] It's the cup, not just what goes into it, that is valuable. (Regan 2004, p. 236)

(kakapo). The loss of a species is morally *neutral* within an individualistic animal ethics approach, which means that the species per se does not possess value. The consequence of following this view would mean that in an exotic-native case like the rat-kakapo example, no intervention is needed, because the predators are no moral agents and their killing of kakapos does not constitute a so-called harm in most individualistic animal ethic approaches.

Like in Singer's theory, the rights view of Regan cannot be brought in coherence with SC, as the entity *species* does not possess a moral value in both approaches. In summary, what is relevant for this thesis, is that individualistic animal ethics positions (e.g. Regan's or Singer's approach) have problems to legitimate the intervention in the wild, as entities are not morally valuable and the responsibility of moral agents concerning conservation questions that involve invasive alien species, that have been introduced in an ecosystem decades before is difficult to argue. Even though there is no reasonable doubt that humans have caused harm in practically all conservation questions, advocates of the classical individual animal ethics positions avoid to argue for intervention into the wild referring to Regan's statement that the "[…] ruling obligation with regard to wild animals is to *let them be*, […]" (Regan 2013, p .122). Unlike Palmer, Regan and Singer cannot legitimise the intervention in the wild on basis of relations, but in order to uphold the LFI, they argue against intervention. Regan's utilitarian-biased miniride principle (Regan 2004, p. 305) is also relevant for Palmer's relational approach. Particularly in relation to the rat-kakapo case this would mean that "doing nothing at all" would be the best option of action, because the rats are quantitative more individuals than the kakapos – admittedly that is a very unsatisfying response to this moral conflict. For this reason, I will try to minimize the moral conflict by applying Palmer's relational approach. The additional consideration of context and relation provides a wider spectrum of opportunities regarding the contact with wild animals than just focusing on capacities.

2.2 Species conservation

Whereas in animal protection approaches suffering and death is considered the ultimate evil (Callicott 1980, p. 311), in environmental ethics, disturbances of the ecosystem are regarded as a loss of value e.g. the disturbance of the native flora and fauna by pest species, which shall be counteracted.

Most environmental ethics approaches like Sandler's view is characterized by an holistic view, which means that entities like populations, species, habitats and ecosystems are morally valuable, whereas the individuals (of a species) are not morally considered. In the article "Intrinsic Value, Ecology and Conservation" Sandler describes two types of intrinsic values

(Sandler 2012): (1) *Subjective intrinsic value*, which assumes that there has to be a human valuer, and the (2) *objective intrinsic value*, which is independent of the humans' attitude. Furthermore, this value persists all along, even if humans do not recognise it. Aldo Leopold was the pioneer of the modern environmental ethics, he states in a famous passage "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise" (Leopold 1968, p. 224─225). This passage is found in the book "Sand County Almanac", which was published after his death and contains a collection of his writings (Leopold 1968).

Species conservation is one part of the very complex, holistically characterized environmental ethics, on which I will focus in this thesis. Therefore, I will give a broad description of what is meant by conserving species. SC can be defined as "[…] the management of wildlife populations in the context of the ecosystem" (Sinclair et al. 2006, p. 2). The goal of SC is the preservation of endangered species from becoming extinct. To prevent the loss of several species, a huge amount of wildlife management methods is implemented in practice, which vary in respect to the level of threat of a species, the kind of threat, the requirements of certain species and also to the species per se. The latter means that most conservation projects are restricted to certain selected (mostly charismatic) species (Ducarme et al. 2013).

The conservation measures regarding the conservation of the kakapo include nonlethal practices like captive breeding, additional feeding, protection of the breeding sites, as well as lethal wildlife management methods e.g. pest management (Kākāpō Recovery and DOC 2016). People, who advocate animal protection, as well as some wildlife managers have an aversive attitude toward (painfully) culling pest animals, and there might also be a shift in wildlife management to use more humane methods to reduce exotic pest species (Marks 1999, pp. 9; Marks 2003). A further necessary part of SC, which in this instance can be considered as one of the humane methods, is the *risk management*. Conservationists try to eliminate potential threats to species in advance, e.g. through protection or restoration of habitats or by careful controls to prevent the introduction of (further) exotic species to a foreign habitat. The notion that SC should promote the survival of all species equally, independent from different characteristics of the species (Rippe 2008, p. 217), seems plausible at the first glance, but at closer consideration it becomes clear, that SC cannot focus on all species equally, because of different levels of endangerment and particularly in regard to the different ecological roles of different species, there are some cases which require more conservation effort than others. In order to make my objection clearer, I will use following example: Some animals have a greater (ecological) importance for the stability of the ecosystem in a habitat than others, which means

that if a keystone species becomes extinct the loss of lots of other species might follow, because those species where dependent on the keystone species' ecological role and function. For instance, if a certain coral species was driven to extinction, the fish and crustaceans, which lived in symbiosis with this coral species might be pushed to the edge of extinction as well because they might not sustain in the changed environment (cf. Chap. 2.2 Species conservation p. 12). With this notion in mind, it would be plausible, unlike Rippe proposed, to spend a greater amount on conserving keystone species in order to save a whole habitat's community and consequently more individuals than spending equal conservation amount on each species.

Since I used words like charismatic species, pest species or keystone species in the chapter above, there is the need of explanation of these designations, and the associated moral conclusions, when wildlife managers classify species into such different categories. These categories could be either based on non-scientific and subjective characteristics such as beauty, cuteness (charismatic species) or nastiness (pest species) or scientifically underpinned characteristics of animals e.g. detrimental effects on economics, human welfare or ecosystems (pest species). Further there are species with a beneficial ecological relevance, as they influence the (current) conditions of a habitat, which are vital for other species (keystone species). I will begin with a description of the human-made concept "species", which constitutes the ultimate value in SC followed by a description of the species categories and finally I will end this chapter with the most common arguments and reasons for SC.

2.2.1 The concept "species" and species categories

Evolution is a process of generating different forms of life, which means there is no clear dividing line between species. Some species are closer related than others but a complete delamination between organisms that are classified as a certain human-defined species is not possible and plausible. There are countless cases in which biologists split up one species into two (or more) new species, because they found out that the animals after all are not that closely related than initially assumed. For instance, scientists recently found out, by using DNA analysis, that there are four giraffe species in Africa instead of just one, which was the previous state of knowledge (Woolston 2016). Nevertheless, humans established taxonomies, which enable us to classify individual animals according their genetics and morphology to different defined species groups. This task seems easy in some animals like mammals, but in other classes like insects, the assignment to a certain species become more difficult (Gullan & Cranston 2005, p. 180).

There is a huge variety of designations for species, dependent on their (negative or positive) effects on their biotic and abiotic surrounding. Conservation biologist often deal with species categories like "charismatic species" (Ducarme et al. 2013) and "pest species" (Marks 1999), "keystone species" and "flag ship species" (Ducarme et al. 2013) or "native and non-native species" (Hettinger 2001). Particularly in environmental ethics various species are ascribed very different moral values. As most of these designations are normatively relevant, because they are the expression of relative value of a species described by humans, I will give a short overview about the definitions and plurality of those species categories and their moral implications in wildlife conservation.

i. Pest species

Braysher describes a pest as "[…] an animal that has a significant net deleterious impact on a valuable resource" (Braysher 1993, p. 2). This definition implies, that an animal can have devastating effects in different areas like ecosystem, biodiversity, but also economy. However, the consideration of an animal as a *pest* will remain in the eyes of the beholder (Marks 1999). Exotic species (synonym: invasive, introduced, alien or non-native species, neobiota) are "[…] species that are foreign to an ecological assemblage in the sense that they have not significantly adopted with the biota constituting that assemblage or to the local abiotic conditions" (Hettinger 2001, p. 193).

Furthermore native species have well-established ecological links (Vermeij 1996, p. 4), which are missing between native and non-native species, so in many cases a negative value is attributed to introduced species.

> Such an [negative; B.K.] appraisal [to exotic species; B.K.] is also clearly called for when an exotic species, plentiful in its native habitat and present as an alien around the world, causes large numbers of extinctions of other species. The damage to humans and to nonhuman nature that some exotic species have caused is a significant reason to be worried about exotic species. (Hettinger 2001, p. 207)

Comparably, introduced predators in New Zealand are also negatively judged, leading to the consideration of them as pest species, while the kakapos are considered as endemic charismatic birds.

Although some conservation biologists are eager to save native species and the idea of "unspoiled nature" and "wilderness",[16] not all introduced species cause damage to the new

[16] For a critique of the argument about the value of "wilderness" and "original state" see Chap. 3.4.2 Values in the environmental view, p. 48.

ecosystem and the local fauna and flora: Williamson described in his “ten’s rule” that only 10% of introduced species are able to establish a breeding population and only 10% of those established populations become invasive species (Williamson 1996, p. 33). Therefore, the characteristic of being an introduced species is insufficient for a negative valuation of a species, except if philosophers value *unspoiled nature* or *wilderness* (Hettinger 2001). In most cases conservation managers argue against invasive alien species and advocate their culling by the reason that the fauna and flora become distorted by those neobiota (Hettinger 2001; Temple 1990). Paradoxically many introductions of species are caused or facilitated by humans with the consequence that humans create eradication management plans to get rid of these species, although they caused this invasion themselves either intentionally or unintentionally (FAO 2017). There are many human activities, which contribute to the distribution of invasive alien species like land use, logging, activities which contribute to the climate change, tourism, ect (FAO 2017). The fact that humans caused many introductions of invasive animals, either intentionally or unintentionally, might be an argument against eradication programs in Palmer’s relational approach, because humans are responsible for the destruction of the ecosystem or species loss. Invasive alien animals become invasive due to human assistance, therefore following the relational approach humans are responsible for the damage and not the animals. After describing Palmer’s relational approach in greater depth (Chap. 3 Analyse of a relational animal ethic approach with regard to the potential of saving a species, p. 23) I will come back to this problem again. In this context, very recent investigations show that invasive animals or also plants, do not inherently have negative effects on the foreign habitat, even if it might appear so at the first glance (cf. Pearce 2015). The water hyacinth (*Eichhornia crassipes*), originating from South America is a massively invasive plant in Africa, Asia, Oceania and North America, due to its overgrowing characteristics of lakes and rivers (ISSG 2017). This floating plants are forming dense mats, which for instance have negative effects on fish populations due to oxygen and light limitations (ISSG 2017). Although this aquatic plant is listed among the 100 world’s worst invasive alien species by the IUCN and the ISSG (Lowe et al. 2000), there are also beneficial effects found (Wang et al. 2012). Wang et al. found evidence for potential utilization of water hyacinth in eutrophic waters, as this plant removes nutrients, which would improve the water quality (Wang et al. 2012). Generally invasive alien species are blamed for ecological damages, but as a study about the invasive honeysuckles (*Lonicera spp.*) in Pennsylvania shows, there are also beneficial effects of alien species for the native community (Gleditsch and Carlo 2011). The honeysuckles provide native frugivore birds an essential source of nutrition, as the abundance of birds positively correlates with the number of honeysuckles (Gleditsch and

Carlo 2011). As those examples show, a demonization of invasive alien per se might be a doubtful approach. In Pearce's view it might be even morally permissible to combat the invasive species in certain situations in following an environmental ethics approach (Pearce 2015).

In this connection advocates of animal protection draw comparisons between negative ascription of non-native species and xenophobic attitude towards human immigrants (Bossert 2015, p. 128; Sagoff 1999) and Regan even described pest species controlling with the phrase "environmental fascism" (Regan 2004, p. 362).

The wilderness and unspoiled nature argument does not justify culling (killing) of non-native species, because this attitude denies the *natural* process of migration. The argument would imply that the species *Homo sapiens* would be non-native to each place on earth except to Africa, where the first humans evolved (Hettinger 2001). The designation of being native or non-native gives the impression of arbitrary categorization by humans, because one can never define a clear cut between being non-native and being native.

I support a strong differentiation between the terms pest species and exotic species, which are commonly mixed up in wildlife management articles (cf. Temple 1990), as an exotic species must not mandatorily become a pest species. Furthermore, the migration of species constitutes, beside the introduction by humans, also a natural phenomenon, e.g. Darwin finches. When the first finches reached the Galapagos Islands, they were exotic species as well (Woods and Moriarty 2001), and nowadays they are considered native on these islands. These birds would never be considered as pests among environmentalists, quite the opposite is the case. The radial adaption of these finches is considered a very valuable evolutionary phenomenon and is therefore defined as an inestimable gain of biodiversity.

ii. Keystone species

In an ecological context, some species are very vital for the structure of an ecological community, such species are so called keystone species. One could argue that it is very essential to focus on the conservation of those species, because their extinction would cause further species loss. Those species are very valuable for a certain habitat, thus the total flora and fauna in a certain habitat is dependent on the well-being of those species. If a keystone species becomes threatened or extinct the existence of many other species is in danger. Simberloff defines a keystone species as "[…] a species having impacts on many others, often far beyond what might have been expected form a consideration of their biomass and abundance" (Simberloff 1998, p. 254).

Examples for such keystone species are coral reefs, which provide food, shelter and hatcheries to many marine fish, molluscs and other animals. Another example are animals which pollinate plants, like some species of bees, beetles, or even mammals like bats and birds e.g. humming birds. Scientists also consider predators as keystone species, because they *control* the populations of prey species (Simberloff 1998)[17].

According to an environmental ethics view, keystone species should be regarded as very valuable and worthy of protection, as these species are crucial for ecosystems and other species.

iii. Endangered vs. plentiful species

Another important criterion for ethical valuation in environmental ethics is the degree of a species' endangerment. In an environmental ethics view, one would ascribe a higher value to rare species than abundant ones, because conserving a rare species would contribute to the conservation of the biodiversity. Conservationists may prioritize the conservation of species, which are in danger to become extinct. The IUCN Global Species Programme created the IUCN Red list, which categorize animal, plant and fungi species according to their status of endangerment. A critical problem of all this categorization effort is, that this project is only a drop in the ocean: According to actual numbers of estimation there are ~ 8.7 million species on Earth (Mora et al. 2011), only 1.2 million are discovered, described and catalogued by humans until now and a relatively low number compared with the total estimated amount of species, namely 80,000 species, are categorized in the IUCN Red list (IUCN 2016).

The minimal rate of newly discovered species and the rapid loss of species (recovered, as well as not recovered ones) are reducing the chances of conserving the current biodiversity. Valuing the species as morally good, triggers a differentiation between the moral consideration of rare and plentiful species. This notion is also reflected by the unequal amount of effort humans put in wildlife management regarding different species. Whereas for the conservation of the biodiversity both rare and plentiful species have the same value, there is logically a need for greater effort to protect a rare species. But being rare does not automatically mean that the species is threatened by extinction, as it is also ecologically determined if a species occurs more frequently than other species (e.g. some ant species are very recurrent, whereas there is a far smaller number of wild boars compared to the individual number of ants, which does not mean that the wild boars are threatened by extinction). Depending on the species and its biology,

[17] The differentiation between predator and prey should also be considered with caution. Beside top-predators, which have no other foes than humans, a predator's fate can always turn form being the hunter into being the hunted.

scientist can calculate if the species are rare or plentiful, the individual number alone cannot be compared between species.

In individualistic animal ethics there is no relevance for moral consideration of endangered and plentiful species. There are several reasons for this, the most obvious is that in animal ethics the individual is of moral consideration and not the species, which is either endangered or plentiful. Individualistic animal ethics rather values the capacity (of feeling pain or socio-cognitive capacities) of animals, than if the occurrence of an animal species on the planet is rare or plentiful. Interestingly, animal ethics mostly focuses on non-human animals (mostly domesticated animals) that are used for human purposes e.g. meat "production". These agriculturally used non-human animals constitute the biggest percentage of all non-human mammals on earth (Smil 2011, p. 619). I do not want to claim that endangered individuals are overlooked in animal ethics, but what is at the stake here is, that in a community of plentiful individuals more suffering could arise than in endangered communities only because they are fewer individuals, which might also explain that animal rights advocates rather focus on the protection of domesticated animals than on endangered animal species.

iv. Charismatic species

Beside the conservation status or the importance of a species for the ecosystem, the popularity and charisma of a species among society is a crucial reason for the conservation as well. Although the use of the term "charismatic species" increased within the scientific community in the last century, there is no consensus about the definition (Ducarme et al. 2013). The word *charismatic* is mostly used in connection with "flagship species":

> A flagship species, normally a charismatic large vertebrate, is one that can be used to anchor a conservation campaign because it arouses public interest and sympathy […]. (Simberloff 1998, p. 247)

Additionally some conservationists state that charismatic species have a kind of "donation potential" for a SC-campaign (Bowen-Jones and Entwistle 2002).

Beside the financial support, which project managers try to gain through using charismatic species for a SC-campaign, there are also very critical opinions about the charisma-based conservation effort (Ducarme et al. 2013), as important keystone species might be neglected. A biased focus on charismatic species is blamed as being unscientific because picking out some charismatic animal could distort results and statistics, which therefore could have effects on the people's perception of the ecosystem and conservation projects (Ducarme et al. 2013). Simberloff soon recognized the problem of focusing on charismatic species, as most keystone

species are rarely charismatic (coral, shellfish, insects, echinoderms,..ect.) which could be easily left behind (Simberloff 1998).

In this charisma-based sense the conservation would be driven by anthropocentric desires and not by a holistic view, which is typical for environmental ethical positions. Environmental ethics philosophers might consider a charisma-based conservation as very questionable.

2.2.2 Arguments for species conservation

Environment ethicists like Norton pursue the notion that a world with n+1 species is more valuable than a world with n species (Norton 1986). He attributes intrinsic value to species, which means species are no means for human purposes, but rather species are valuable for their own sake. The ascription of intrinsic values, is rather supported by environmental ethic philosophers than by society.

As I described the species concept as a human-made concept, most arguments in favour of SC are anthropocentric. Paradoxically, Paquet and Darimont (2010, p. 186) believe that the primary cause of environmental destruction is deeply rooted in anthropocentrism, but as we will see in the arguments below, most arguments, which are in favour of the environment conservation have a anthropocentric core as well.

i. Values of resources

Natural resources are essential for instance as food resource, constructing material, energy resource or medical resources just to mention a few. Resources are vital for all organisms on earth, so this argument can be interpreted as anthropocentric, pathocentric or biocentric. To set an example, the kakapo is dependent on the rarely occurring mast years of the rimu tree in order to get enough nourishment in breeding seasons, if the number of rimu trees would decrease, the kakapo would have breeding and survival problems (Kākāpō Recovery and DOC 2016). Although agriculture had almost replaced the humans' dependence on food sources in the wild, wild animal hunting still remains a commonly performed practice. As history showed, human hunting activities contributed to the extinction of some species, a famous example is the dodo (*Raphus cucullatus*) from Mauritius, where the last individual was reported in 1662 (Roberts and Solow 2003). Also nowadays target poaching is a considerable reason for the loss of species in certain habitats, e.g. the brown bear (*Ursus arctos*) is critically threatened by poachers in Europe (Swenson et al. 2000). Animals are hunted for the purpose of meat and other products (like ivory, fur, rhino horn, ect.) but also the fruits or blossoms of endangered wild plants are commonly overharvested. The natural resource argument indicates that the protection of species ought to guarantee an essential source of resources for present humans as well as future human

generations, but also for non-human animals (cf. sustainable populations). The resource argument from an anthropocentric view has weak points, as most human communities are not dependent on wild animals as food source any more. Gaining "pleasant products"[18] and trophies from wild animals, is also more a thing of the past, since only a minority group of humans endorse the hunting of endangered species e.g. elephants for ivory or birds in order to receive magnificent feathers. Most people of the community perceive the hunting practice for such (for some humans) pleasant products as condemnable. Nevertheless, some human communities are still dependent on natural resources for food purposes, for instance the Inuit amongst many others still depend on (indigenous) hunting for a source of protein. Although there might be some arguments against this form of hunting for instance by arguing that the products gained from wild animals could be replaced by agricultural products (from other regions) as well, though this would entail again economic and environmental "costs", Palmer states that real subsistence hunting is nothing reprehensible (Palmer 2010).

ii. Values of new insights in science

The value of new insight in science is tightly connected to the resource argument for SC, with the difference that this value is more about resources, that are not detected yet. Some species which are not discovered yet could potentially be advantageous in medical research, and could be beneficial for human health. Scientists found an antitumor mechanism in naked mole-rats (*Heterocephalus glaber*), which could have ground-breaking implication in curing human cancer patients (Seluanov et al. 2009). In some cases, where the discovered phenomenon has *no* obvious utility for humans, some would argue that merely the satisfaction of humans' scientific curiosity is valuable as well e.g. about the ecological links, biodiversity and unique characteristics of species. Beside the potential benefits of discoveries in wild animals and plants for medical purposes, also discoveries in other science sectors like chemistry, physics but also studies about animal behaviour, migration biology or ecological interaction of species are of great value. These scientific insights might be amongst others necessary for technology, habitat restoration or species conservation.

iii. Cultural and aesthetic values

Many species play very fundamental roles in human cultures, therefore the loss of those species would involve also a cultural loss. Human history, language and stories are shaped by animal, plant and fungi species which live in the close surrounding nature of human settlements

[18] "Pleasant products" refer to products of wild animals, which are neither products for consumption nor products that function as trophies. These products include e.g. feathers, fur or leather.

(Robischon 2012). Especially the language of people, who still live in very close contact to nature and are deeply interconnected with biodiversity is considerably based on the environmental surrounding and certain species. For instance the Laplander have no umbrella term for reindeer, but rather a quantity of words for this animals depending on age and gender (Robischon 2012, p. 59). Non-human animals have influenced many religions all over the world. In many religions and cultures deities are pictured theriomorph (in shape of animals) like in the Hinduism or in the old Egyptian cultures.

Beside cultural values there are aesthetic values, which are not directly linked to human culture, however provoke great fascination in humans. Imaging a calm ocean surface, where suddenly a humpback whale emerges – such a phenomenon might astonish many people. However, we do not have to plan a boat trip in the ocean, to be impressed by animals like humpback whales. Most people enjoy feeding and observing wild birds in their garden, or are impressed by the colourful flower meadows, which they cross on their daily walks. This might be considered as an ecosystem service that furthers human health. The great fascination for wild animals and plants, would get lost with decreasing biodiversity. The aesthetic values of certain species are of great relevance for most people, who therefore might also advocate SC.

iv. Ecological values

As I described above in the section about the relevance of keystone species, some species play a fundamental role for the stability of the ecosystem. A very classical example for a very crucial ecological role are insects particularly bee species with regard of pollination of plants. The ecological argument could be regarded either as an anthropocentric, sentientistic or biocentric, as non-human animals and humans are dependent on the stability of the ecosystem for survival. Rippe regarded the ecological links between species and habitats are the only basis for a conservation argument. He advocates that all species deserve equal consideration, which is at best achieved by focusing on the conservation of habitats and ecosystems in which the non-human animals are living, as, beside the fact that animals can only survive in the habitat to which they adopted, they are only able to flourish in an *ecologically healthy* habitat. This argument is not of anthropocentric but rather of pathocentric nature, since not only human benefits count but also the insurance of other animal individuals' flourishing.

3 Analysis of a relational animal ethic approach with regard to the potential of saving a species

3.1 Hypothesis

The book "Animal ethics in Context" (2010) written by Clare Palmer is in my opinion a very progressive context-sensitive animal ethic approach regarding the moral consideration of wild animals. Palmer proposed, that her view can be accepted by both animal ethicists and environmentalists (Palmer 2010, p. 166) – this is a very interesting claim, which I shall investigate further. In her ethical approach, Palmer includes capacities of non-human animals as well as relations to animals in certain situations and contexts. Negative obligations are based on capacities, while positive obligations can be derived from contexts and human relations (Palmer 2010, pp. 96). Bossert as well agrees that Palmer's view is the most comprehensive and convincing position regarding the moral consideration of wild animals (Bossert 2015, p. 12). Many ethicists keep their opinion, that it is possible to reconcile SC and AP, even if this statement is still afflicted with doubts, as the previous chapters portrayed (Bossert 2015; Jamieson 1998). The underlying values and views in animal ethics and environmental ethics are based on fundamentally different ethical grounds, namely pathocentric and holistic values, as described in more detail in the chapters before.

However, Bossert further states that Palmer's approach could allow holistic values (Bossert 2015, p. 111), and hence establishes a basis for a reconciliation of those ethical approaches. Furthermore, Bossert states that some animal ethic positions could constitute a convincing baseline for environmental ethic (Bossert 2015, p. 145). This statement implies that Palmer has accomplished, to close the gap between animal ethics and environmental ethics a little more. But the argumentative underpinning of this statement came off badly in Bossert's work, hence I will analyse Palmer's work in relation to Bossert's notion, if Palmer's contextual sensitive animal ethics approach is compatible with holistic values and the basic concept behind environmental ethics.

Consequentially I formulate my hypothesis as followed: *The relational approach developed by Clare Palmer holds the potential to result, without valuing entities such as species, in conserving a species by protecting individual animals, since she provides a convincing theoretical framework for an adequate moral consideration of wild animals, which therefore minimizes the conflict between environmental and animal ethics*.

In order to underpin this hypothesis, I will reconstruct the ethical approach of Palmer followed by a comprehensive alignment with an environmental approach. The protection measures in

favour of the kakapo, which were depicted in detail in the introduction should serve as the environmental approach in form of a practical example to illustrate this analysis. The essence of the matter is, whether Palmers approach provides a theoretical ethical basis for an ethical argument that could save the kakapo as a species, while devoting moral consideration even to the introduced mammal predators.

3.2 Focusing on Palmer's relational approach

3.2.1 Capacity-orientation and context based ethics

Palmer's relational approach could be conceived as a very progressive view in animal ethics as she tries to tackle and close the gap between classical animal ethics views (like Singer's utilitarian approach and Regan's animal rights approach) and the environmental views (like Callicott and Rolston III). The main purpose of Palmer's book was to reconcile two very plausible intuitions – the intuition of treating animals with the same capacities equally and the "laissez-fare intuition" (LFI) (Palmer 2010, p. 2). The "laissez-faire intuition" "[…] is a widely distributed intuition, that we have different moral responsibilities toward domesticated animals and wild animals" (Palmer 2010, p. 2). There are different forms of the LFI, which I will explain later (cf. Chap. 3.2.2 What is a "relation" according to Palmer?, p. 27). Although it is not Palmer's main concern to bring those, in many ways divergent views closer together, she manages to propose a view which, in her mind could be accepted by both animal ethicists and environmental ethicists (Palmer 2010, p. 166). She elaborates a theory which underpins the LFI, while letting the possibility of assisting wild animals under some circumstances open, which could possibly be endorsed by animal ethicists as well as environmentalists. She builds up a basis for further discussions about a reconciled approach including AP *and* SC. In order to point out the potential interfaces between animal ethics and environmental ethics within the relational approach, I am going to reconstruct the core statements of this view in the following chapters.

Unlike most animal ethics views, Palmer's relational approach is not fully ─ as she calls it ─ "capacity-orientated*"* (Palmer 2010, p. 25), but rather focuses on *contexts* and *relations*. To some amount capacities like suffering and experiencing pain play a role in the relational approach in regard to the threshold for moral consideration. Palmer claims that the capacity of feeling pain is *sufficient* for moral consideration, although not *necessary*.

In her book she works on the premise that mammals and birds can experience pain (Palmer 2010, p. 15) including the factor of varieties in pain sensitivity between different species.[19] Palmer justifies the narrow focus on mammals and bird in two ways, firstly there is strong scientific evidence that mammals and birds are able to consciously feel pain and secondly she does not completely exclude other animals, which are probably capable of feeling pain, by proposing that sentience is *sufficient* but not *necessary* to be of moral considerability (Palmer 2010, p. 11). This implies that the relational approach could be expanded to other vertebrates as well. In claiming that sentience is sufficient, she does not rule out other reasons for moral consideration. As the scientific evidence for feeling pain is almost *equally convincing* for all vertebrate classes, she could have expanded the focus on all vertebrate classes. The narrow focus on the animal classes with the highest cognitive skills conveys the impression that Palmer was influenced also by more sophisticated capacities beside the capacity of feeling pain, such as high cognitive or social skills (mammals and birds) to define the moral community.

The core aim of Palmer was to establish a convincing theoretical concept, which permits assistance in certain wild animal–human encounters, without undermining the LFI. Ethical views which are solely based on capacity orientation lack to justify a different treatment of wild and domesticated animals, therefore philosophers, who endorsing a *capacity orientated* approach could not defend the LFI appropriately. The reason for this, is that animals with the same capacities ought to be treated equally (utilitarian view) or possess the same rights (rights approach) in rights views. If we would follow a very strict interpretation of the capacity-orientated rights approach or the utilitarian approach, we would be obliged to reduce suffering of domesticated mammals (e.g. horses) and wild mammals (e.g. wildebeest), since they share similar capacities.

> If we took seriously wild-animal suffering, perhaps we would be required to spend our weekends heading out into the hills to find wounded animals to help, [….]. (Palmer 2010, p. 72)

In order to bypass the LFI–problem in capacity-orientated views, philosophers mostly argue with the, according to Palmer implausible "ignorance argument*",* which is found in utilitarian as well as rights approaches. Regan proposed a solution to bypass those (time consuming) obligations to assist wild animals by defending mainly negative rights (Palmer 2010, p. 35) and hence he states analogously that we should let wild animals be (Regan 2013, p. 122). Singer

[19]In order to declare species-specific pain sensitivity, Palmer used the example of underwater sonar, which is a common method to investigate the sea floor. The very noisy underwater sonar does not affect humans, but cause immense pain to cetacean, which can actually lead to death of whales and dolphins as they may strand (Palmer 2010, p. 15; Fernández et al. 2005)

argues with a related claim: "Once we give up our right to claims to 'dominion' over other species we have no right to interfere with them at all. We should leave them alone as much as we possibly can" (Singer 1983, p. 251). Even if it is a prima facie duty not to harm (negative duty) wild animals in the classical capacity-orientated individualistic animal ethic approaches, they are lacking sound justifications when it comes to the duty to assist wild animals (positive duty) (Palmer 2010, pp. 44). I will discuss the important role of positive and negative duties within the relational approach in the chapter below (cf. Chap. 3.2.3 Negative and positive duties in contextual approach, p. 32).

The integration of context and relation in Palmer's approach has major advantages compared to solely capacity-orientated approaches, as she can differentiate on basis of relation and context to domesticated and wild animals more plausibly, although the animals might share the same capacities (Palmer 2010, p. 69). "Something about animals' context or its relationship to us must be what is of moral relevance" (Palmer 2010, p. 39).

The duty to assist animals is generated when moral agents (humans) cause harm to (wild) animals (Palmer 2010, p. 23). Since harm to wild animals is mostly connected with negative alternation of the ecosystem by humans, it is in practically all conservation questions a matter of humans' responsibility. As Palmer, beside capacities, also considers relational features and contexts within the moral analysis of how to deal with (harmed) wild animals, it is easier for her, in comparison to solely capacity-orientated animal ethic approaches, to underpin the LFI in (few) cases where wild animal suffering is not human-caused (Palmer 2010, p. 44). An additional point why contexts should be of great importance in animal ethics approaches is that capabilities might be shaped by contexts (Irvin 2004, p. 63). If the context or relation is simply ignored, an individual which potentially could have the same capacities, but then, for instance, is raised under different circumstances, and therefore has different capacities, could be treated morally differently in a solely on capacity-based ethics. An example for the described problem in capacity-orientated ethics might constitute marginal cases, for instance, a man, who fell into a coma after a car accident, would not have the same capacity any more like his healthy friend of the same age. Palmer considers the context and is therefore able to morally consider those two individuals as equal persons. Though there could also be the reverse case, that two individuals with similar capacities are not equally morally considered. For instance, Palmer claimed, that domesticated and fully wild animals could be considered morally different, based on the different relation toward humans (c.f. LFI in Chap. 3.2.3 Negative and positive duties in contextual approach, p. 32).

In summary, the relational approach allows two very important differentiations, which are hard to defend in a capacity-orientated individualistic animal ethics view: Palmer differentiates based on relation toward domesticated and wild animals and she establishes a distinction between positive and negative duties toward animals (Palmer 2010, p. 69). By combining these two differentiations she develops a new theoretical frame of the LFI – the "no-contact LFI" (Palmer 2010, p. 68), which I will describe in more detail in the following chapters.

Utilitarian and rights theories stick more or less strictly to a principle of universalizability, which is defined by Gewirth as "[w]hatever is right for one person must be right for another person under similar circumstances" (Gewirth 1978, p. 104─105). Palmer expresses some worries about considering relations *and* capacities in the moral weighting, and the implementations of the principle of universalizability, because a different relation towards two individuals with the *same capacities* might require different moral obligations (Palmer 2010, p. 49). Palmer is aware of this potential problem and does not deny the importance of the universalizability principle (Palmer 2010, p. 49). Nonetheless, if we adopt Gewirth's definition of universalisation in Palmer's theory, we can detect, that Palmer in fact sticks to the principle of universalisation as she speaks about different circumstances (or relations) and Gewirth proposed, that there must be the *same right under similar circumstances* (Gewirth 1978, pp. 104─105). As now the advantages and disadvantages of the relational approach, in contrast to common individualistic animal ethics approaches, are clarified, I will continue by explaining, how Palmer defines a relation in order to make clear, how different relations could alter moral obligations towards animals, followed by a brief discourse about negative and positive obligations in Palmer's approach.

3.2.2 What is a "relation" according to Palmer?

According to Palmer, relations arise in various ways and contexts. In human context, we might often think about affective or emotional relations toward family members, friends and pets (Palmer 2010, p. 51). Although emotional relations, or the generation of empathy for animals is doubtless a significant factor in animal ethics, Palmer questioned, if an affective relation is *enough* to generate obligations to assist wild animals, since wild animals are to some extent emotionally distant from humans (Palmer 2010, p. 52). Furthermore, humans paradoxically can generate emotional feelings towards non-sentient things (e.g. cars or a stuffed toy), while the emotional relation to sentient wild animals is missing or reduced. Consequently, Palmer rejects the idea to base her relational approach on affective relationships alone (Palmer 2010, pp. 51─62).

Secondly, Palmer mentions the contractual relation between domesticated animals and humans (Palmer 2010, pp. 57─62). A contractual relation would justify the LFI, since domesticated animals would be seen as a part of a contract: The animals get shelter, food and water and in return they provide meat, milk, wool and other agricultural products. A major point of critique is, that domesticated animals do not have the chance to consent to the contract, since they are forced into this contract when they are born, thus the contract is irreversible and unescapable for the animals. A contract without rational consent of both contract partners raises problems in various ways, therefore the contract relation is implausible in terms of the relational approach, which leads Palmer to draw on the causal relation to elaborate her approach (Palmer 2010, p. 62).

Palmer defines a "causal relation" as "[…] cases where human beings have caused, or partially caused, animals to be in a particular situation and contexts in which they are" (Palmer 2010, p. 54). Although this description of a causal relation seems plausible in the first glance, a causal relation in Palmer's sense could be problematic too. The biggest problem is, that the extent of humans-caused deteriorations for animal lives are often not traceable or resolvable, like Palmer shows by the polar bear example (Palmer 2010, pp. 141─146). The Arctic ice is shrinking, which means that the habitat of polar bears (*Ursus maritimus*) gradually gets lost and consequently these animals have difficulties to find enough food. As the major reason for this habitat loss are the anthropocentric greenhouse gas emission, humans are responsible for this ecosystem degradations. The recognition of this phenomenon was discovered relatively late (in the 90's) and as it is a collective action of almost all humans, it is difficult to find somebody responsible. Another difficulty for the designation of the human-caused harm to polar bears is that it is not an intended assault particularly against polar bears (Palmer 2010, pp. 141─146). Many factors like political, society-based and economic reasons impede a sustainable reduction of greenhouse gas emissions. Palmer claims that the emission of greenhouse gases constitutes a harm towards polar bears (Palmer 2009, p. 602). The polar bears are not the only animals that are harmed by the climate change, but for now I will stick to this particular example. In order to reduce the harm, that is done to the polar bears through the shrinking Arctic ice, Palmer suggests to counterbalance the harm by protecting them against harms, that are not the result of the climate change or protecting them from hunting (Palmer 2010, p. 146).

The causal relation might not be traceable, since we either do not know the potential negative effects of some human practices on wild animals, or we might not recognize the connection of a certain human practice and an ecological degradation. Since our world is based on causal relations and especially as the ecosystem has a vast number of complex interrelationships,

which might not even have been scientifically detected yet, the causal relationship might raise an enormous richness of such cases, which have to be carefully examined and need a lot of information. Nevertheless, Palmer also considers the huge amount of information, which is needed to evaluate relations and consequently moral obligations, as a weakness of her approach (Palmer 2010, p. 138). Palmer tries to defend the problem of *excessive knowledge*, since she states that it is implausible that there could be an "all-size-fits-all answer" in such difficult ethical questions (Palmer 2010, p. 139). A two level principle to decide about the morally justifiable reaction to an ethical conflict which originates from utilitarian approaches, could also be a possibility to deal with this "excessive knowledge problem*"* in the relational approach: The level 1 principle of decision making shall be applied in stressful situations, in which quick decisions are necessary, whereas the level 2 principle strives for gathering information in *cool hours* when no immediate decision must be made (Palmer 2010, p. 139). Although a relational/contextual approach based on causal relations holds the problem of *excessive knowledge*, it might be nonetheless the most fitting "relation-type" in Palmer's approach.

Beside the relation types, like causal relation, also relational states such as *dependence* and *vulnerability* play a fundamental role in the relational approach (Palmer 2010, p. 5). The relational state describes the kind of relation we have towards other people or animals. Palmer stresses the importance of differentiation between wild and domesticated animals (Palmer 2010, pp. 63─76). This differentiation on basis of the relation between humans and domesticated or wild animals enables Palmer to defend the LFI. Environmental ethicists like Rolston III advocate this intuition as well, in this context he states that humans have "[…] no obligation to help wild animals*"* (Rolston III 1989, p 134) whereas he claims that humans are obliged to help domesticated animals, as according to Rolston III they are "[…] no longer in the context of natural selection" and "[…] in taking an interest in them [i.e. domesticated animals; B.K.] humans have assumed a responsibility for them" (Rolston III 1988, p. 79). Similar justifications for the LFI can be found in animal ethics positions, like Regan's rights approach:

> […], wildlife managers should be principally concerned with letting animals be, keeping human predators out of affairs, these 'other nations' to carve out their own destiny. (Regan 2004, p. 357)

Palmer claims, that human-created relational states such as dependence and vulnerability and certain kinds of causal relations, in which humans have been shaping the animals' natures and situation in a bad way, are of moral importance (Palmer 2010, p. 5). In order to understand Palmer's notion of different treatment of animals with the same capacities, it is important to declare the different relations toward domesticated and wild animals, although the further moral

analysis of the kakapo-rat example includes only wild animals. But, as I mentioned before, I excluded all other introduced mammal predators for the purpose of an easier comparison, which also includes domesticated animals like cats and dogs. Hereafter, I want to give a precise definition of domesticated and wild animals, advocated also by Palmer in order to create a basis for the LFI and furthermore to justify the associated duties towards those animal groups.

i. Domesticated animals

A domesticated animal is "[…] bred in captivity […] in a human community that maintains complete mastery over its breeding organization of territory and food supply" (Clutton-Brock 1989, p. 21). Having the complete mastery over an animal implies that this animal is dependent in one or various ways on humans, which leads Palmer to the claim that domesticated animals are made vulnerable regarding their absent ability to survive without humans or their selective breed characteristics that in some cases cause suffering. Since domesticated animals are dependent on the humans' assistance in order to survive, Palmer claims that this generation of vulnerability creates special obligation (positive duties) toward those animals (Palmer 2010, p. 93).

Palmer differentiates between (1) *external dependence* and (2) *internal dependence* (Palmer 2010, pp. 94─96). External dependence means that (mostly wild) animals are dependent because they are confined and separated from their natural habitat or made dependent on a certain resource within their habitat e.g. food provision by humans, although they should be able to provide for themselves. Domesticated animals are internally dependent which means that those animals, bred by humans, need human assistance to flourish or even to survive. The vulnerability and dependence of domesticated animals is a matter of degree as animals that are selectively bred and shaped to humans' desires in severe ways (e.g. milk cows with huge udder for a higher milk yield, hairless pets or pets with short muzzles) are more dependent or impaired to flourish than animals that are bred without such severe (torture breeding) characteristics. Domesticated animals, especially pedigrees that suffer from painful breeding characteristics, are born into a human-caused vulnerability, hence they need human assistance to survive or flourish which creates a special obligation toward those animal (Palmer 2010, pp. 92─93).

ii. Wild animals

There are several ways to describe a wild animal (Palmer 2010, pp. 64─65): Firstly, animals could be considered as *constitutively wild* on a domesticated-wild spectrum, which implies that wild animals are not selectively bred by humans. Secondly, animals can be *locational wild* regarding their living in uncultivated habitats. This type of wilderness is based on a natural-

agricultural spectrum and it is mostly about the place the animals live. Thirdly, animals can be *behavioural wild*, which means that they are considered on a wild-tamed spectrum. Palmer defines a "fully wild" animal for her purposes as constitutively *and* locationally wild (Palmer 2010, p. 65). According to this limitation of definition a group of animals remains, which are neither domesticated nor "fully wild" in Palmer's sense. She is talking about the animals in the "contact zone*"*.[20] These animals are per definition constitutive wild but not locational, as they live very close to human settlements (like black birds, hedgehogs or rats) (Palmer 2010, p. 66).

However, not only domesticated animals are brought into a vulnerable state caused by humans, wild animals can be made vulnerable as well: The provision of food to wild animals is, in most cases, problematic (Dunkley and Cattet 2003; Orams 2002). Not only their behaviour or population size could be changed by provision of additional food, but if animals do not need to forage for themselves anymore, this might lead to a situation in which animals lose the ability to search for food (Orams 2002) also the transmission of diseases at feeding stations could have devastating effects on an animals population (Dunkley and Cattet 2003).

Since I have reconstructed Palmers definitions of wild and domesticated animals, I will shift to the next issue, namely the LFI, which is based on the different moral treatment of wild and domesticated animals. Moreover, Palmer mentions three kinds of the LFI, which again differentiate between the treatment of wild animals in terms of relational state and relations toward humans (Palmer 2010, p. 68):

(1) Strong LFI: One should (prima facie) neither harm nor assist wild animals.
(2) Weak LFI: One should (prima facie) not harm wild animals and there is no presumptive duty to assist, but assistance is permissible.
(3) No-contact LFI: One should not (prima facie) harm wild animals, and there is no presumptive duty to assist them, though assistance is permissible. Positive duties to assist may be generated under some circumstances.

The most complex LFI is the *no-contact LFI*, which is also the intuition that is most plausible according to Palmer (2010, p. 76). Her approach is based on the *no-contact LFI* and she mostly focuses on the circumstances (context and relations) in which the duties to assist, particularly toward wild animals, are generated.

[20] Palmer realizes the lack of consideration of animals in the *contact zone* in the modern animal ethic approaches, but this issue is not discussed in full detail in her work (Palmer 2010, p. 166).

In summary, the relational approach is based on causal relations and relational states (vulnerability and dependency). We should keep in mind that, according to Palmer, a relation is only generated, if one member of the relationship is a *moral agent*. Furthermore, Palmer focuses on these relations to underpin the *no-contact LFI*, which opens up the big question, under which circumstances it is an obligation to assist wild animals and under which it is not. A big advantage of Palmer's relational approach, in comparison with most other animal ethic approaches is that she can differentiate between domesticated and wild animals and further her approach allows the distinction of negative and positive duties. In order to tackle the question when obligations toward wild animals are generated, I will give an outline of the role of negative and positive duties in Palmer's approach.

3.2.3 Negative and positive duties in contextual approach

In the former chapters, I have already fractionally mentioned, that negative (e.g. duty not to harm) and positive duties (e.g. duty to assist) play a fundamental role in Palmer's relational approach, hence now I want to go into this issue in greater depth.

In contrast to other individualistic animal ethic views (utilitarian or rights approach) Palmer emphasizes the (positive) duty to assist wild animals (Palmer 2010, pp. 96). The circumstances, in which the duty to assist is obligatory, can be given, for instance, when wild animals are harmed by humans (e.g. an animal gets hit by a car) or when wild animals are made vulnerable (e.g. by feeding wild animals) or are trapped in dependence situations (e.g. when wild animals are confined in zoos). Most cases of harmed wild animals are a result of a negative human influence on animal species, consequently the positive duty shall be granted most wild animals.

Palmer claims, that humans have always a (negative) duty not to harm sentient animals. In classical animal rights views, the focus rests almost solely on negative rights, e.g. the "no-harm principle*"* in Regan's or Francione's (rights) approach (Palmer 2010, p. 35). There is a big (moral) difference between stopping harming and assisting an animal that was harmed in the past. The difference is mostly manifested in the different attitude of either making an animal's well-being worse (harm) or *just* do not affect the already worse state of an animal by refusing assistance. Furthermore, unlike negative duties are prima facie toward all sentient animals, the positive duty to assist requires some kind of relationship (Palmer 2010, p. 88).

> If wild animals have a positive right to life, not only should we not kill them, but we should protect them from being killed. But this would require very extensive intervention in the wild. (Palmer 2010, p. 35)

Although there are differences between negative and positive duties, they should not be considered as completely separate (Palmer 2010, p. 4). Humans, as moral agents, thus have negative (duty not to harm) and positive duties (assistance duties) toward other beings which possess negative (right to not be harmed) and positive rights (right to receive assistance). This notion is generally accepted, hence also mirrored in most countries legislation, as the violation of a negative right weight more than the violation of a positive one. According to Palmer, duties to assist are therefore seen as basically weaker than the duty not to harm, this is also reflected in the three types of LFI. In all three types of the LFIs, moral agents are liable under the negative duties not to harm wild animals, whereby positive duties are at best permitted but not obligatory, except for certain cases in the *no-contact LFI.* In the no-contact LFI obligatory positive duties are generated, by harms or a vulnerable relational state caused by moral agents. In order to provide a clear description of the role of negative and positive duties in Palmer's relations approach, the definition of "harm*"* and "assistance*"* is essential. Following three premises are used by Palmer to define "harm" in a morally relevant sense (Palmer 2010, p. 23):

(1) A harm is an action carried out by a moral agent.
(2) A harm sets back the interests of an animal.
(3) The animal must be made worse off due to a harm.

A natural disaster, which causes many animals to suffer is not a harm in this sense, but rather a hurt or misfortune (Palmer 2010, p. 143). Furthermore, a harm sets back the interest of an animal. Consequently, medical treatment, which might cause pain in order to cure the animal is not considered as a harm, since it is in interest of the animal to become healthy again. A harm could be also defined as a situation in which a non-human animal had been worse off considering that the animal's experiential interests are worse off as a result of the agent's action, which therefore impaired the non-human animal to live her life in a normal course (Palmer 2010, p. 23).

Quite in contrast to harm, Palmer defines assistance

> […] as an action (or series of actions) carried out by a moral agent (or agents) that promotes an animal's (experiential) interests over time and that makes the animal (experientially) better off than it would have been had the agent(s) not acted the way he, she, or they did. (Palmer 2010, p. 23)

A moral responsibility or positive duty of assistance can be according to Scheffler generated by three types of situations firstly due to past interactions (e.g. harms), secondly due to special relations (e.g. children, pets) and thirdly due to the membership of some common group

(Scheffler 1997, p. 190). A duty to assist wild animals on the basis of a human-animal entanglement, histories and special relation might be considered as rare, as wild animals seem to be emotional and locational distant, though this perception does not comply with reality especially considering urban animal populations and wild animals in the contact-zone. However, as mentioned before humans cause lots of unjustified harm to wild animals, for instance, through climate change, habitat destruction and the introduction of exotic species. Palmer is granting wild animals, which were unjustly harmed by humans in the past (or in the present) a claim for special obligation (Palmer 2010, p. 96). The vulnerability and dependence of wild animals, which was/is generated by humans in forms of, for example, habitat destruction represent a kind of relation between humans and wild animals, that generates a duty to assist, even when those animals live very distant from human settlement and are also emotionally not too close to them (Palmer 2010, p. 52). Inspired by reparation, which are granted to humans, who were victims of injustice, Palmer proposed a form of reparation to wild animals (Palmer 2010, p. 96, p. 101). Palmer wants to prevent the line of thought, that (some, often supressed minorities) humans could be considered as animal-like, hence she distinguish between *reparation* in human cases and *special obligations* in animal cases, although she claims that special obligations are comparable to reparations in human cases (Palmer 2010, p. 96). Although this terms implies a differentiation of human and non-human animals, if we share some capacities with animals, which are morally relevant, humans ought to accept a certain degree of human-animal sameness, that does not devalue humans (Palmer 2010, p. 99).

3.2.4 Palmer's argumentation for assistance in the wild

The idea behind the *no-contact LFI*, in very simple terms, prohibits prima facie to harm a sentient animal and permits assistance to wild animals, whereby under certain circumstances assistance is obligatory (Palmer 2010, p. 5, pp. 44). This form of LFI constitutes a differentiation between domesticated and wild animals but additionally enhances moral consideration in terms of obligatory assistance towards wild animals in comparison with other animal ethic or environmental views, which mostly focus on the strong or weak LFI (cf. Regan 2004, p. 357; Rolston III 1988, 193; Singer 1996, p. 361). These assistance-generating circumstances are based on *causal relations* or *relational states*, which means that humans caused harm to wild animals or made them vulnerable or dependent (Palmer 2010, pp. 44). As humans are in the position to recognize the harm and are able to *compensate* the harm in one or another way, in order to change the animals' situation for better, Palmer suggests that in such human-caused harm situations, *special obligations* are generated (Palmer 2010, pp. 96). Derived from the claim that beings that possess rights (in case of Regan the *subjects-of-a-life*,

viz. in his view mammal, that are older than one year) deserve some kind of "compensatory justice" after past rights infringement (Regan 2004, p. XI). Palmer claims, that it would be plausible that non-human animals, who possess similar capacities like humans (e.g .socio-cognitive abilities) could raise a claim of *compensatory justice* as well (Palmer 2010, p. 100). Palmer also recognized difficulties of this view, as animals might not be able to recognize the wrongful harm themselves and therefore cannot sue a claim of justice themselves after being harmed (Palmer 2010, p. 100). However, the need of a human agent, who represent the animal's claim, is in Palmer's view no reason for depriving an animal's raise of a claim, after a harmful infringement (Palmer 2010, p. 100), based on the argument that some humans (e.g. children, senile people or coma patients) are not able to raise their claims themselves as well.

Another challenge to argue for special obligation for wild animal, which were harmed by past human caused infringements is the concern about determination of the responsible person for those special obligations (Palmer 2010, p. 79). Caney suggests that there are two types of responsibility (Caney 2006, p. 467): (1) On the one hand the responsibility could be generated on basis of a causal account and (2) on the other hand the person must not be the direct cause of harm,but benefit from the action, which causes the harm. The causal account implies that the responsible person for assistance also has (directly) caused the harm. For instance, a person drives by car along the main road and (unintentionally) hits a fox, she harmed the fox severely and therefore is the cause for the foxes suffering, hence she is obliged to assist the fox. A form of assistance could be either to bring the fox to the closest vet or a wild animal rescue station, another legitimated form of assistance in Palmer's view, would be to painlessly kill the fox if he is that seriously injured and there is no (foreseeable) possibility of recovering (cf. squirrel example; Palmer 2010, p. 148). A further major concern, which perhaps could be an argument against special obligations, might be that accidental or unintentional harms cannot provide grounds for reparations (Palmer 2010, p. 101). As a reaction to this accusation she claims, that we ought to investigate the non-moral facts of a situation of unintended harm (Palmer 2010, p. 101). On basis of this she claims that it is plausible, that some risky or not-well reflected actions might very likely cause harm, even if it is not intended.

> […], if the setback to animals' interests can be described as predictable, foreseen, or recognized to be at high risk of occurring, then such setbacks, when they occur, should be thought of as harms. (Palmer 2010, p. 143)

Following this statement situations, in which it is likely and foreseeable, that a human or non-human animal could be eventually harmed are not morally neutral, even if the agent does not intend the harm (Palmer 2010, p. 101). This resembles Unger's claim: "In an area frequented

by little kids, then, even if you cause no harm, there's something morally wrong with your behaviour [driving a car too fast, B.K.]" (Unger 1996, p. 32).

Likewise, it would not be morally neutral to plan a new shopping centre on a natural area, without investigating potential ecological consequences or harms to the animals, residing in this habitat, which was selected for the construction project.

In relation to exotic animals the argumentation could be outlined also quite similar: As it is scientifically evident that exotic animals constitute in some cases (not all) a threat to native species, which are not adapted to those introduced non-human animals, activities like traveling or exporting products by ships and planes to places (mostly islands), where the ecosystem could be disturbed very easily because of different reasons[21], could also be seen as very risky actions, which are therefore not morally neutral. As these activities are inevitably necessary, there is the need of other preventative measures in order to lower the risk of threats toward native species. What is important to note here is, that the threat is generated particularly (although indirectly) by humans and not *only* by exotic animals, who might be considered after an introduction as pest species and become the target of eradication programs. From an animal ethics perspective, it might be a duty to prevent the killing of native animals by exotics, but also to lower the risk of introduction, in order to save (potential) invasive alien animals from being pursued and killed.

A more difficult case of figuring out the responsible person(s) for wrongful harm is the responsibility on a beneficiary account, as persons who benefit from the harm are (mostly) not those, directly causing the harm. A good example to demonstrate the beneficiary account of a harm is the visit of a delphinarium for entertainment. The visitors might be the reason for the harms, which are done to the dolphins, but they are not the directly responsible for the harm, which is caused during the dolphin trapping and the confinement in a tiny tank. To reject the visit of dolphin shows or the support of dolphin releasing programs could be considered as a form of assistance.

Beside a lot of other cases of human-caused (ongoing) harms to wild animals, the dolphin example contains further difficulties, as (many) harms toward wild animals are still ongoing,

[21] Due to the (usually) small size of islands and additionally the isolated evolution of species (e.g. no adaptation to predators), island populations and ecosystems are especially endangered by different types of disturbances, like it is the case in New Zealand, but also on other islands like Mauritius, Madagascar or Galapagos. Islands offer limited habitat space, for this reason islands cannot inhabit a huge number of individuals. Consequently, island species are generally lower in number than species on the mainland. This interplay of risk factors on islands might result in higher extinction rates of species on islands, due to introduction of exotic species or settlement of humans and establishment of infrastructure and cities, than it is the case on the mainland.

and will not be ended in foreseeable future. Palmer clearly differentiates between stopping wrongful harm and assistance. However, she tackles the question about how humans should act in situations, where harm is still inflicted to wild animals, which cannot be ended in foreseeable future. Humans are in the position of being able to assist the animals to make them better off in their situation. Cases in which the harm is still ongoing could be counteracted otherwise e.g. by changing the situation of the animals in the sense that they can live a better life despite being harmed. A very critical question concerning this counteracting measures could be, whether there actually is the possibility and resources available to assist these animals otherwise and if not, how to deal with those animals. The polar bear case, described by Palmer (Palmer 2010, pp. 142), is an example for such a dilemma. The bears are persistently harmed through the consequences of climatic change (shrinking of the polar bears' habitat), which is caused by humans. Although humans cannot stop these harmful results of global warming immediately, as this would demand a long and complicated political process, humans can assist the polar bear by protecting them from further threats, e.g. by designating the habitat of bears as nature conservation area or by prohibiting hunting. Palmer claims, situations, in which harm is still ongoing and humans can slightly change the animals' situation for the better, can be interpreted as special obligation rather than stopping of wrongful harm (Palmer 2010, pp. 96).

I demonstrated how Palmer argues in favour of wild animal assistance, particularly for obligatory assistance, called *special obligations*, which are generated, when animals are harmed by humans intentionally as well as unintentionally by a risky foreseeably harmful action. A moral agent (human) can be responsible in two ways, on the one hand he can be directly responsible, in the sense that the action of a moral agent causes the wrongful harm, on the other hand a moral agent could be indirectly responsible by benefitting from a harmful action directed to wild animals. Palmer's special obligations are generated by *causal relations* toward wild animals, therefore we can assume that there is a huge amount of cases where harm is inflicted in very different forms. In order to categorize the human-caused harms, I will depict some cases of human-caused harm to wild animals, which are of moral concern in environmental ethics and could perhaps constitute a threat to an entire species. Furthermore, these cases justify the duty to assist wild animals (on causal and beneficiary account):

i. Humans degrade several animals' habitats

Degradation of a habitat is a very comprehensive conceptuality, as the word "degradation" implies that there is gradual deterioration. Degradation reaches from grave cases like the deforestation of the Amazonian rainforests to some minor changes such as maintain a fixed-

rope route in the Austrian alps. Both actions could have impacts on the fauna and flora in a negative way, but there are certainly even *winners* among (both native and exotic) species, which can cope far better with the new environmental circumstances. However, habitat destruction is a serious issue, as it is one of the main causes for species extinction. Diamond developed the idea of the "evil quartet*"* of extinction, whereby habitat destruction is the first pillar of these four extinction threats (Diamond 1984). The "evil quartet" of extinction should represent the "deadly horsemen of ecological apocalypse" including (a) habitat destruction , (b) overkill, (c) introduced species and (d) secondary extinction (Diamond 1984). Palmer proposed two examples of animal victims of habitat degradation, in claiming that special obligations are generated: the coyotes example (Palmer 2010, p. 103) and the already outlined polar bear example (Palmer 2010, p. 142). The coyote example mentioned by Palmer illustrates very well what such a situation could look like (Palmer 2010, pp. 103─105): A natural region where a coyote pack has established its territory, is converted into a new urban construction area for humans. Since the coyotes are harmed by the humans in several ways (e.g. they have less space to raise their pups and hunt for food or additional treats due to traffic) there are special obligations devoted to the coyotes. Palmer clearly argues that such a conflict situation does not mean that the settlement needs to be restored, but that the inhabitants of the new settlement ought to assist the coyotes otherwise, for example by accepting them in their neighbourhood or by driving more carefully on the road (Palmer 2010, p. 101).

She correctly recognizes that the special obligations, which are granted to either the coyotes or the polar bears, could never bring back the "original state" of the habitat. Therefore she suggests to assist in other ways than following an unrealistic vision of restoring the habitat, for instance by preventing humans to hunt polar bears or by educating people, who share their villages with coyote packs in order to accept them in their neighbourhood (Palmer 2010, p. 105).

ii. Humans take over a certain natural habitat

The humans' occupation (settlement) of a certain land is nothing bad or harming per se, but in some cases where humans established cities in untouched regions the methods of making the land obtainable for humans resembles those of habitat destruction. The areas have been made suitable for the new human inhabitants by ecologically destructive measures which include deforestation, the maintaining of roads and houses. A competition over the habitat started between humans and the resident non-human animals, mostly to the detriment of the animals, which inhabited the region before human settlers started to expand or built their cities in those natural areas.

iii. Humans made wild animals dependent on food

The provision of food to wild animals has many disruptive effects on wild animals, e.g. animals might become dependent on the additional food provision, which might also constitute an indirect harm, due to the loss of hunting or foraging skills (Orams 2002). But also feeding points by hunters could have detrimental effects on the animals, regarding the increased risk of disease transmission (Dunkley and Cattet 2003). This in turn generates special obligations toward them.

iv. Humans introduce exotic animal species to a certain habitat

In the introduction, I have already outlined the ecological problems that could be caused by exotic animals (Chap. 1.2 The situation in New Zealand, p. 2). Animals are intentionally (due to agricultural purposes e.g. sheep or pigs) or unintentionally (due to settlement, shipping or tourism e.g. rats or stoats) introduced into foreign habitats, where they constitute an ecological threat to native animals (Krajick 2005). Introduced species form one of the four major biodiversity threats called the "evil quartet" (Diamond 1984), hence the ecological problems caused by neobiota (introduced species) are an important issue within the field of wildlife management. As a harm caused by neobiota it is not directly caused by humans, but rather indirectly. The indirect harm of wild animals is a bigger challenge to detect because it might not be as obvious as direct harms. Furthermore, animals are in constant movement and might enter a foreign habitat on their own, which complicates the analysis of indirect human-caused harm toward native animals as well. Palmer does not provide an example of this kind of harm, but as this work emphasizes the conflict between native and exotic species, I will consider the human-caused introduction of exotic species to a foreign ecological habitat as indirect harm inflicted by humans.

v. Humans cause diseases in wild animal populations

Diseases are likely occurring in wild animal populations, as pathogens distribute rapidly through agricultural animals' husbandry (Martin et al. 2011). As the domesticated animals are genetically not very different from their wild relatives, the diseases are very likely to spread to the wild populations, but also the other way around – diseases can spread from wild populations to domesticated animals (Martin et al. 2011). Unlike in domesticated animals, which are examined routinely by vets and get the appropriate vaccinations, the treatment of wild animals is more challenging. If wild animals are infected, they might perhaps die a painful death. Especially in contact zones between domesticated and wild animals such as pastures where wild and domestic animals forage e.g. domestic pigs and wild boars, the danger of infection is given.

But also the above-mentioned feeding stations built by hunters could constitute a potential diseases spreading location (Dunkley and Cattet 2003). Palmer suggests in cases where wild animals are likely to be infected by diseases from domesticated animals, humans should assist, even if the only possibility to *rescue* some of the wild animal individuals is to kill some of the ill animals (cf. elk disease example: Palmer 2010, p. 146).

All these cases hold the same problem; the *original state* of things like the habitat cannot be restored, not even with great difficulties. Only long lasting political decisions or immense time-consuming efforts could contribute to restore the habitat to a state that resembles the original one (for a detailed critique for the "original state" see Chap. 3.4.2 Values in the environmental view, p. 47). Thus, the special obligation should rather orient toward counterbalancing the inflicted harm by assisting the wild animals rather than trying at any costs to restore the state of the habitat like it was before harming interventions, what is seen in most cases as impossible (cf. polar bear example Palmer 2010, p. 142).

As I have listed some (there are many more) causal relations in which humans cause harm to wild animals, which consequently according to Palmer's relational approach generate special obligations. It is important to note cases of harm toward wild animals, which might not entail those duties.

Harm or misfortune and the generation of special obligations: Animals are not only harmed by humans, but also by other animals or natural disasters, as these harms are not inflicted by humans (moral agents) it does not constitute a *harm* in Palmers sense but rather a *misfortune*. If humans are not the direct and indirect cause of a wild animal's suffering, humans are *not* obliged to assist (Palmer 2010, p. 108). If a moral agent by chance encounters a nest of abandoned young rats, this would not generate an obligation for person to assist, because the suffering of the young rats is neither directly nor indirectly caused, by humans (Palmer 2010, p. 108). Though the person, who finds the rats is obliged to not prima facie harm them, there is still no reason that the human has an obligation to assist. In contrast, if the person encounters dumpster kittens, which are in the same situation like the rats, these cats might be victims of (some) humans' desires to buy a pure bred (defect-free) pedigree cat, therefore the special obligations are generated toward the kittens (Palmer 2010, pp. 106─114). The different treatment of those dumpster kittens and wild rats is important to underpin all kinds of LFI (Palmer 2010, pp. 107─114). Knowledge about the specific human-animal-relationship becomes important in order to decide about the (different) treatment. Palmer based the argument in favour of the *non-contact LFI*, which implies a distinctive treatment of domesticated and

wild animals, based on the fact that, for instance domesticated cats, particularly pure bred pedigree individuals, are in a relational state of dependency and vulnerability toward humans, whereas the wild rats do not share such relation to humans (Palmer 2010, p. 108). If there is no moral agent involved, who could have caused the suffering of a wild animal, it is not obligatory to assist these animals (Palmer 2010, p. 108). Although no special obligation is generated, Palmer tried to find a way to argue in favour of (voluntary) assistance, even if we encounter a harmed wild animal that is obviously not harmed by a human, but rather by other animals or a natural disaster, without overturning the LFI. She uses following example in order to explain her argument (Palmer 2010, pp. 148─150):

A human is hiking in the forest, as she detects a severely (obviously by a predator) injured squirrel. Assistance, according to the *no-contact LFI*, in such a (not human-caused) harmful situation is neither prohibited nor obligatory. Palmer argues that the encounter itself could be considered as morally relevant, despite that the assistance should not be mandatory in situations like this, she claimed that on basis of a good human's character, assistance could be provided. If a human would pass by the suffering squirrel without assisting, this would be morally justifiable according the LFI and Palmer's view, whereby humans could consider this (by-passing) human to be person, who has a bad character. To relieve the squirrel's suffering in such a situation is not attached to excessive costs to the potential assisting human. Since persons who assist in such an encounter, will be considered as persons with good character traits, Palmer suggests that the willingness to assist is a good character trait, which might be a very weak reason for assisting the animal (Palmer 2010, p. 150). The suggestion that a virtuous person probably would assist the squirrel in its precarious situation is mismatching with the LFI. Furthermore, if a person with a good character and the willingness to assist injured animals, that are not injured by humans, the question remains: Why would this virtuous person only care for individuals in cases of encounter and not for harmed individuals that are more distant? Palmer suggests, that even if a person, who has compassionate dispositions toward distant and encountered individuals, is running counter the LFI, the act of assisting should at least be seen as morally good (Palmer 2010, p. 150).

3.2.5 Palmer's justification for painless killing or harming in order to assist wild animals

In the course of the following subchapter, I will investigate cases in which Palmer justifies painless killing of non-human animals, which are morally considered (mammals and birds) in her relational approach. All justifications for killing in the relational approach are based on the (utilitarian biased) premise that animals can be killed painlessly in order to assist them or other

individuals (Palmer 2010, p. 129). Palmer proposes that there is no single answer on whether painless killing is morally better than other actions, because there are many factors which must be taken into account, like the capacities, the relation or the condition of the individual. Painless killing as a form of assistance is only permissible in Palmer's view, when the harm induced by a moral agent is greater than the harm which is caused by painless killing (Palmer 2010, p. 152), hence it is important to note that an intact ecosystem is not a sufficient argument for painless killing in Palmer's approach as she focuses on a sentient individualistically based animal ethics. Environmental ethicists claim, that it is not morally condemnable or even necessary to kill individual animals in order to preserve a certain species (Hutchins and Wemmer 1986; Katz 1983). A significant differentiation about the justification of killing animals in environmental ethics and animal ethics is the number of animals, for instance, in environmental ethics it would be morally recommended to kill all rats in New Zealand in order to preserve the kakapo, whereby the number of killed rats would exceed the number of preserved kakapos considerably. Whereas, even if it is justifiable in (particularly utilitarian biased) animal ethic views to painlessly kill animals, this would be only morally justifiable if either more animals could be saved due to such an intervention (utilitarian) or if there is the need to override the rights of some animals to at least save most individuals like in Regan's miniride principle (Bossert 2015, p. 103; Regan 2004, p. 305). This brief overview of Palmer's justification of painless killing in certain situations should serve as a bridge building argumentation, with regard to differences and similarities of killing animals within environmental ethics and the contextual relational approach.

As I have outlined in Chap. 2 (Fundamental Problem, p. 7), in environmental ethics the killing of the individual does not morally matter, as only entities like species and ecosystems are morally valuable. If Palmer's approach, as she suggests, could be accepted by both environmental and animal ethicists, one must consider if painlessly killing individuals is permissible under some circumstances. Palmer clearly claims, that the painless killing of animals, in fact harms the animals (Palmer 2010, p. 131). She bases this claim on *desire arguments* and *lost future arguments* and concludes that the loss of life harms an animal, whereby the severity of harm is dependent on his species-specific capacities (Palmer 2010, p. 15). I will not elaborate the desire and lost future arguments here, as it would go beyond of the scope of this work (for details see Palmer 2010, pp. 129─138). In order to define the borders and opportunities of the relational approach compared with environmental ethics, I will outline some examples, in which Palmer considers painless killing as justifiable.

Assuming, that a human-caused disease spread over a wild elk population, there is neither a treatment for the disease nor a vaccination to prevent other individuals from becoming ill. The disease causes a slow painful death and is very contagious. Humans are the indirect cause, as the disease first emerged in domesticated animals and spread over to wild animals, as humans did not separate ill domesticated animals properly in a quarantine area. In such cases assistance is obligatory, because (even though indirectly) humans are the reason for the harm done to the wild elks. According to the *no-contact LFI*, which Palmer endorses, there should be obligatory assistance for wild animals only if humans caused the harm, which is the case in the elk-disease scenario. Under such circumstances the painless killing of the infected individuals, which would otherwise die a painful and long death, would be morally better than to just let them die without assistance (to the indispensable death). Palmer certainly follows the *miniride principle* of Regan (Bossert 2015, p. 103; Palmer 2010, pp. 146─148; Regan 2004, p. 305), which claims that it is morally desirable and more respectful toward an individual to override the right of some individual to save the most under specific circumstances (Regan 2004, p. 305). The miniride principle is utilitarian biased, but under certain inescapable circumstances, in which the only choice is death, Palmer recommends the painless killing of individuals in order to assist individuals themselves or other affected individuals. This kind of assistance on the one hand *helps* the infected individuals themselves, as their suffering would end faster and on the other hand, it would save the remaining healthy individuals. Although harming an animal is in all forms of LFI a prima facie prohibited action, there are some good justifications in certain circumstances, like the current example, in which harming in order to assist is permissible or even recommended. The harm of being infected is greater than painless death, consequently, as a special obligation according Palmer's relational approach was generated, since the harm is human originated, she justifies the painless killing of infected elks (Palmer 2010, p. 146).

I want to refer to another example of Palmer (Palmer 2010, p. 150): A hiker finds a badly injured squirrel on the side of a road, which was most certainly hit by a car. As in the elk example before, this a case where the positive duty to assist is recommended. A big difference between those cases is that the assistance of the squirrel is far less effort, than assisting the individuals of a huge elk population, as there is the need of a research team to assess the situation. The squirrel was obviously injured by humans (causal relation) and is vulnerable due to the injuries (relational state). As the hiker did not injure the animal herself, the duty to assist is not as strong, as if she were the culprit of this harm. However, the hiker might have benefitted from motorized transportation in one way or another before and as the squirrel was a victim of these benefitting institution, there is a weak obligation to assist. The hiker could either assist the squirrel by

takeing him to a vet or by assisting the squirrel by painlessly killing him, in order to end his suffering.

These two examples of assisting (severely) harmed animals through painlessly killing them implies that under some circumstances, substantiated by good justification, painless killing is permitted in Palmer's relational approach (Palmer 2010, p. 137).

3.3 Are there holistic values in Palmer's approach?

The relational approach developed by Clare Palmer is clearly an individualistic ethical theory, as the individual is of moral value and not entities such as species or ecosystem. Nonetheless, this progressive theory offers the potential of (partial) compatibility of values in both ethical views: animal ethics and environmental ethics, which are commonly considered as impossible. Both Palmer and Bossert note that Palmer's contextual relational approach could be, despite the differences in those views, accepted by animal ethicists as well as by environmentalists (Bossert 2015, p. 111; Palmer 2010, p. 166). Environmental ethics is a very broad ethical field, which goes beyond the scope of animals and cover the moral consideration of biotic communities e.g. plants, animal and fungi species as well as the moral consideration of abiotic factors.

For the purpose of this work I will investigate the potential of Palmer's approach in order to diminish the actual conflict *about*[22] (not between!) native and exotic animals in New Zealand. A lot of questions arose after the claim of Palmer and Bossert, that the relational approach constitutes a form of reconciling position in reference to SC in New Zealand:

By following Palmers theory is it possible to save entities (in this case species), even if she does not morally value them? Are holistic valuation of a species the basis for protecting them? or in other words – Is species protection only a by-product of saving animals following the relational approach?'

Most practical examples stated by Palmer are closely connected to SC, for instance the wild elk disease case (Palmer 2010, p. 146) or the case with the endangered polar bear (Palmer 2010, p. 142) due to climate change. All those examples are particularly taken up by wildlife managers and rarely by animal liberationists, as most of them reject intervention in the wild (Regan 2013; p. 122, Singer 1996, pp. 361─362). The notion of providing special obligations to polar bears,

[22] There is an ethical conflict *about* native and exotic species, which means that this conflict is constituted between values which are endorsed by philosophers, who argue either about the value of the individual or the value of the entity species.

in order to change the individual's lives for better, is closely linked to saving the species as an entity. The practice of saving some individual polar bears or protecting the species polar bear might even require the same concepts, plans and management methods, whereby other intentions underpin the notions of either saving the individuals or saving a species, but the result of either holistic SC or individual-based AP might remain the same. Jamieson (1998, p. 42) puts this observation in a nutshell by stating: "[…] environmentalists and animal liberationists have many of the same enemies: those who dump poisons into the air and water, drive whales to extinction, or clear rainforests to create pastures for cattle, to name just a few."

With this notion in mind I want to come back to my introductory case example – the (native) kakapo, which is threatened by (exotic) predators in New Zealand. As Palmer does not deal with the very complex issue of introduced animals, I am going to investigate this subject by using her relational approach.

3.4 Potential of Palmer's approach to *preserve* a species

To start off the analysis of Palmer's approach and its potential for SC I recall my hypothesis: *The relational approach developed by Clare Palmer holds the potential to result, without valuing entities such as species, in conserving a species by protecting individual animals, since she provides a convincing theoretical framework for an adequate moral consideration of wild animals, which therefore minimizes the conflict between environmental and animal ethics*.

The relational approach provides some moral potential, to *preserve* a species, even if the position does not support moral consideration of species. Such a claim can be based on the notion that Palmer also tries to tackle human-(wild)animal conflicts by using special obligations in order to improve the chance of survival for wild animals, whose welfare has been impaired by humans. Particularly because of the fact that humans are the main cause of most species extinction (or in animal ethics terms the reason for most wild non-human animals' death), due to different types of disturbances (cf. "evil quartet"; Diamond 1984), with her relational approach Palmer would cover most animal species, who are harmed by humans. Although Palmer focuses exclusively on the assistance of wild animal individuals, she criticises the same (human-caused) harm-sources for wild animals as environmentalists do, as most endangered species are threatened because of human activities. The evil quartet exclusively describes human-caused (either indirectly or directly) reasons for species loss: (a) habitat destruction, (b) overkill, (c) introduced species and (d) secondary extinction. In other words, humans are responsible for the vulnerable state of most wild animals on our planet, which in Palmer's sense constitutes circumstances in which humans have positive duties to assist these animals.

Likewise, environmentalists focus on an endangered species, because the species is on the edge of extinction. Since species are morally valuable in environmental ethics, environmentalists are willing to preserve those species, even if they *need* to sacrifice individual animals in order to achieve successful conservation results, as it is the case when exotic species pose a threat for native species. In following Palmer's approach, the value of the species is no proper justification for sacrificing or painlessly killing individual animals, but both environmentalists and Palmer might propose the same actions to assist wild animals, although they have completely different values in mind. For the most reasonable comparison between the potential of Palmer's approach of *protecting a species* and the methods which are supported by environmental ethical arguments, I will pick two different related moral factors, which might provide a clear picture of how the different ethical approaches work in order to protect species. I will start by examining values in Palmer's approach and the environmental ethics, followed by the resulting duties. Before I will compare these two different approaches, I shall recall the conflict analysis of the rat-kakapo example by highlighting the most relevant conflict points.

3.4.1 Conflict analysis of the rat-kakapo example

The negative valuation of invasive alien animals opens up a very complex field of ethical questions, that is rarely taken up by animal ethicist as well as environmental ethicists (cf. Marks 1999; Rippe 2008). By an analysis of the conflict about introduced predators and the kakapo I am going to make the ethical challenge of protecting those birds more visible. Rats, stoats and other predators have to hunt in order to survive and feed their young. In most animal ethics positions, predation is not considered as morally reprehensible, as the predators are not moral agents, which means that they can act neither morally good nor bad. Environmentalists consider predation (in the predators' native habitat) as something morally good, as it contributes to the stabilization of the ecosystem. However, predation pressure by invasive alien carnivores onto potential prey animals, which are not adapted to them, is considered to be a major threat, which must be combated. The native kakapo is vulnerable due to exotic predators, because they are adapted to a predator-less environment. They have a very slow reproduction to "prevent"[23] an overpopulation in a predator-free environment. Such factors contribute to the gradual loss of kakapo individuals, when invasive alien species prey on them. Therefore, humans are indirectly responsible for the loss, as they have introduced animals, which are not native to New Zealand. Humans are responsible for the harm done to the native fauna, even if introduced predators

[23] Of course, not the birds were eager to "prevent" overpopulation, but this context of lower reproduction cycle in an predator-free environment developed during a long evolutionary process.

function as an extended arm of humans, who constitute the indirect harm. This responsibility might be the driving force behind the motivation to conserve endangered species like the kakapo. In order to investigate the differences and the similarities between environmental ethics and Palmer's relational approach, I will not adhere to a certain environmental ethic view but rather to the wildlife management practice in New Zealand. Furthermore, I will not focus on a certain philosopher, but rather on the wildlife management practices influenced by environmental ethics, I will thus use the general term "environmental ethics", in order to mark the two positions clearly and make the comparison not unnecessarily complicated.

3.4.2 Values in the environmental view

Katz reveals the following major candidate groups for moral consideration in environmental ethics: individuals, species and ecological communities (Katz 1983, p. 74). The ecological community including plants, fungi, animals but also abiotic things like stones, rivers or soil, must be of primary environmental concern according to Katz, in order to prevent an undermining of environmental principles (Katz 1983). It seems plausible, that if environmental ethics would focus on individual animals (including humans) as moral groups, some actions or omission of an actions would have detrimental effects on the environment, e.g. not managing an overpopulation of a certain species in a habitat. This interpretation of environmental ethics is a source of criticism: The idea that humans are also considered as just another species on the planet, which additionally constitutes a great threat to the ecological system, beguiled some philosophers to have a negative attitude toward humankind. Due to such notions, environmental ethicists are often blamed for advocating misanthrope thoughts (Katz 1983, p. 77). Another question arises after following an environmental ethics interpretation, which regards the ecological system and nature as an entity as the *first and only* source of moral consideration: Why should endangered species, which have no serious environmental function anymore (e.g. because they are very low in number or extinct in the wild) should be conserved. Following this strict environment ethics interpretation would trigger the justification that species as long as they do not contribute to the health of the ecosystem, would not constitute a requirement of conserving this "function-less species" (Katz 1983, p. 77, 79). Katz suggests that the most plausible source of moral consideration in environmental ethics, would be the primary consideration of the ecological health, but supplemented by a secondary goal, namely the protection of natural individuals and species (Katz 1983, p. 81):

> Moral consideration should first be directed toward the natural community or ecosystem. Supplemented by a consideration of natural individuals and species, so that in cases where the

> ecosystemic well-being is not an issue, the protection of endangered species or natural individuals can be morally justified. (Katz 1983, p. 82)

Katz includes individuals as a secondary goal for environmental ethics, nonetheless, he rejects the view that species or individuals could be the primary goal of environmental ethics, because on the one hand healthy ecosystems require the consideration of non-sentient beings and abiotic factors and on the other hand an "artificial world" created by humans could also serve as basis for species' and individuals' survival, which would undermine all environmental principles (Katz 1983, p. 84). Katz's interpretation of environmental ethics is plausible, as it includes the environment as a whole but secondarily focuses on its' inhabitants on two levels – species and individuals. In the next paragraph, I will discuss the different values of the moral community in environmental ethics and the arguments, which result from these values.

Two main values are emphasised by environmental philosophers. Either ethicists attribute intrinsic value or instrumental value to nature. Gamborg characterizes the two approaches on the one hand as "wise use of nature" (instrumental value) and on the other hand as "preservation of nature" (intrinsic value) (Gamborg et al. 2012, p. 2). Nature, that has instrumental value is replaceable, what would mean, if the kakapo becomes extinct in New Zealand, it would be (morally) perfectly fine to introduce another charismatic bird species, which has no negative impact on other native species in this habitat. The resource argument implies that nature has an instrumental value. Particularly the often stated argument that the resource must be conserved for the well-being of future (human) generations underlines the view that the environment functions as an instrument.

This anthropocentric argumentation is still common, but some philosophers claim that a mere attribution of instrumental values to nature results in justification problems (Sandler 2012). Resource-based species conservation would not consider all species equally. Even though there is no equal consideration of species (in terms of practical conservation effort) following an intrinsic value approach as well, there is at least in theory intrinsic value attributed to each species, as according to Regan "[o]ne either has it [inherent value, B.K.], or one does not. There are no in-betweens. Moreover, all those who have it, have it equally. It does not come in degrees.*"* (Regan 2004, p. 240 - 241).

Sandler (2012) argues, that intrinsic value ascribed to species, environment and ecosystems, is the most stable and incontestable value for the justification of wildlife management (Sandler 2012, p. 5).

> Those who endorse the view that species and ecosystems possess intrinsic values believe that recognition of it is crucial both to justifying conservation biology and setting appropriate conservation goals. (Sandler 2012, p. 1)

Most renowned environmental philosophers such as Callicott, Rolston III, Taylor and Soulé argue in favour of intrinsic value of entities (cf. Callicott 1980; Rolston III 1989; Taylor 1986; Soulé 1985). According to them, (nearly) all species possess inherent value, but exotic animals, that constitute a threat toward native animals might not be considered to have inherent value. But yet they would have inherent value in their native habitats. "Natural predation", in the sense that predators are native to their hunting area is supported in environmental ethics, or even promoted as predation could be considered as a form of ecological dynamic, that constitutes an intrinsic value in environmental ethics and therefore should remain *intact*. As long as the ecosystem is *intact,* what is sometimes interpreted as the ecosystem being still untouched by humans, some environmental ethicists claim that there should be no intervention in the wild. In the case of New Zealand, where predators were introduced and constitute a major threat to the native fauna, the ecosystem was massively altered by humans, compared to the situation before humans discovered the islands of New Zealand. Some environmental philosophers argue that an ecosystem in the original state possesses intrinsic value, some environmentalist demand for a restoration to the original state (Elliot 1982), which is heavily criticised in modern environmental ethic and conservation biological discoursed.

Endangered species (like the kakapo) are of greatest concern (very valuable) for wildlife managers, because they most likely become extinct in foreseeable future and therefore receive the greatest attention in wildlife management (Clout 2006; DOC 2014). In contrast the Norwegian rat (*Rattus norvegicus)*, which is classified in the red list (IUCN 2016) as a species with *least concern* is considered (in some habitats) as a pest species and deserves (almost)[24] no moral consideration, when it comes to preserving endangered species. The culling of rats is considered as a morally good practice in environmental ethics, as these predators are a major reason for the loss of the kakapo, and the minimization of rats enhances the survival rate of kakapos (Bellingham et al. 2010; Clout 2006; Clout and Merton 1998).

The classification as either pest species or endangered species is not an unescapable assignment, as animal populations underlie a permanent dynamic, which causes a population, depending on

[24] Some wildlife managers factor in the suffering of pest species in their action plans and search for more humane methods to get rid of them, like Clive Marks (Marks 1999), but such ethical evaluation of wildlife management is relatively rare.

environmental changes, to shrink or grow (cf. Chap. 2.2.1 The concept "species" and species categories, p. 14). Let us assume, that there was an outbreak of a lethal viral disease infecting the Norwegian rat, with the result that almost all Norwegian rats except for one small population in a valley of the Rocky Mountains disappear. In such a (admittedly improbable) case the Norwegian rat becomes an endangered species and wildlife managers would raise great effort to preserve this species. This example shows that the only reason for the preservation of one species and the culling of another one depends on the degree of endangerment, the dispersion over the planet and the invasiveness to foreign habitats. The different treatment of species, after I assumed that all species possess inherent value and therefore are of moral consideration, might be confusing at first. Yet the heart of the matter is the status of the species (endangered, abundant, native, invasive, ect.) and the species per se. Just with this notion in mind it becomes reasonable, why the individuals of one species are protected, whereas the individuals of another species are the target of an eradication program.

Moral consideration is awarded to species, and not the species-representative individuals, which serve as instrument to maintain a species in environmental ethics. Captive breeding and artificial insemination, which is done to ensure the growth of the kakapo population, might not contribute to the animals' well-being, but has surely a positive impact on the goal of preserving the species *Strigops habroptilus* (Kākāpō Recovery and DOC 2016). Many zoos adorn themselves with the claim,[25] that they contribute to the species preservation in terms of captive breeding or reintroduction projects, which definitely do not correlate with the animals' well-being in most cases (cf. SeaWorld).[26]

Species are not the only entity which possesses inherent value in an environmental ethics approach, the balance of the ecosystem in all types of habitats and the biodiversity are of great moral value as well. Restoration of a degraded habitat to a more suitable habitat for the native flora and fauna is one major aim of environmentalists. A closer look reveals that the ecological entities are interlocked with each other, meaning that if the ecosystem is out of balance the currently established species in those ecosystems are made vulnerable or strengthened (which might lead to invasive characters of a species). This imbalance caused through ecological changes or artificial reconstruction of various habitats, could result in biodiversity loss, as species extinction becomes more probable. What is at stake here is, that ecological entities

[25] Many zoos use the claim of contributing to species preservation as a marketing tool, as the real statistics of successful reintroduction of captive animals are rarely implemented and the support of ex situ projects are sparse (Price and Fa 2007).

[26] SeaWorld: https://seaworld.com/

cannot be regarded separately, the entire ecosystem is a very complex and interlinked system, in which a small change could lead to major habitat-altering consequences.

Humans generally strive to stop such ecosystem-changing developments; as ecological changes are considered detrimental to humans and other organisms on earth. Even if ecological changes, species loss and habitat destruction (due to e.g. natural disasters) are not *new phenomenon* on earth, (some) humans desire to keep the ecosystems in the "original state" or restore the habitat in original state-like manner, what is in most cases impossible to achieve. Moreover, bringing back the original state of a habitat is impossible considering that nobody is able to turn back the time. Furthermore, the original state of a habitat, before humans altered it, was morally irrelevant, as no moral agent intervened in the nature. After humans try to create the original state of a habitat, this would not be morally irrelevant anymore, because humans, as moral agents, are the originators of the habitat that might resemble the original sate quite well. This issue is of central importance in order to ethically analyse the kakapo-rat example, since the original ecologic state of New Zealand is an unreachable goal even with modern methods. The striving for the original state includes an anthropocentric nucleus in the argumentation, as the loss of species through the destruction of habitats and environmental changes mirrors our (the humans') own impermanence. The destruction of the ecosystem, and the associated loss of species, might generate some kind of fear in humans, that there is the possibility of humans' extinction as well, hence humans might become eager to constitute the unattainable goal of restoring the ecosystem to the original state.

Coming back to species conservation, I want to emphasize that in an interlinked ecosystem, wildlife managers cannot completely single out ecological changes and habitat destruction to preserve a species. There is a huge variety of value attribution in different environmental approaches toward species, habitats and the ecosystem, as I have investigated in this chapter. The variety of values could be considered on different levels: Considering the main notion behind environmental ethics we can distinguish between instrumental and intrinsic values. Beside these levels of values, Katz suggested that *at first* the ecosystem should be morally considered whereas there should be the *supplementary* goal of conserving species and individuals as well (Katz 1983). Species play different roles in the environment and could be categorized due to their endangerment, invasiveness or even attractiveness (cf. Chap. 2.2.1 The concept "species" and species categories, p. 14). Consequently, the duties toward two different species might not be equal.

After investigating the values related to wild animals in Palmer's approach (below), I will follow up by revealing the duties in environmental ethics, which occur in order to *protect* the discussed values.

3.4.3 Values in the relational approach

In contrast to the common environmental view, in the relational approach values are ascribed to individual animals, hence the entities like species or ecosystem do not possess value in Palmer's approach. Grimm and Aigner (2016) tackle the issue of simplification in individualistic animal ethic approaches, which solely base their moral community on capacities, and provide a profound critique of such forms of individualistic animal ethics approaches. The simplification of complex contexts by limiting the moral consideration of capacities is unrealistic in a context and relation-based world (Grimm and Aigner 2016, p. 41). Although Palmer bases the morally considered community on capacities (at least mammals and birds are within the moral community), she additionally focuses on relations and contexts, when it comes to negative and positive duties. As mentioned earlier, Palmer emphasizes that the capacity to experience pain or perceive aversive or positive mental states is sufficient, but not necessary for moral consideration in her view (see footnote; Palmer 2010, p. 11). Palmer ascribes moral considerability to mammals and birds (Palmer 2010, p. 4), since the capacity of consciously experiencing pain is scientifically proven, at least considering birds and mammals. Additionally, there is some evidence that birds and mammals share higher cognitive abilities (Palmer 2010, p. 18). Although, in her book, Palmer focuses on mammals and birds as members of the moral community, she does not strictly limit the moral community to mammals and birds and keeps it open for other vertebrates as well. The moral community includes (only) animals that are capable of experiencing pain, which is definitely the case in mammals and birds. This limitation implies that some animals that play a very fundamental role for the ecological stability are not considered as morally more relevant, e.g. *invertebrate* keystone species like bees or earthworms, than species that do not contribute to the stability of the ecosystem like the kakapo. Wild animals, which are not included in the moral community in Palmer's sense are only relevant, if they contribute to the welfare of animals, which are morally valuable.

Palmer does not argue for rights or the inherent value of animals, like Regan does, but she adopts a position, which is compatible with a rights view (Palmer 2010, p. 34). One could argue, that animals have inherent value in Palmers approach, even if she does not explicitly call it that way, but she does not hold the belief that animals have an instrumental value, as their capacity of feeling pain is morally relevant (Palmer 2010, p. 11). The position, that a person has positive and negative duties *towards* a non-human individual implies that the individual animal has

inherent value, because it is an *end in itself*. Palmer does not argue, that an animal should be treated well for the purpose of humans (e.g. because humans might be distressed by seeing mistreated animals), which would indicate instrumental value. Contrary to such an (instrumental) argumentation, which implies, that an animal has an instrumental value for humans' end, Palmer argues for minimization of negative effects on animals for their own purpose (Palmer 2010, p. 11) which is congruent to the rights view.

The major concern in Palmer's work is about the contexts and relations between humans and (wild)animals. Relation can alter the duties toward animals (with the same capacities), which made it possible for her to sustain the *non-contact LFI* (Palmer 2010, p. 68). Palmer intends to combine two very plausible (but hardly reconcilable) positions: The LFI position and the notion that animals with similar capacities should be treated in the same way. The *no-contact LFI* is one proposed solution. Domesticated animals should not be prima facie harmed and also assistance is required, due to the human-caused vulnerability of domesticated animals (e.g. due to selective breeding or confinement). The line of argument considering wild animals is similar to domesticated animals with regard to harm: Wild animals should not be prima facie harmed, but in relation to positive duties, different treatment can be necessary. The notion of such different treatment of wild and domesticated animals, while they possess similar capacities, does not mean that the value of the individuals in both groups are different, it is rather the relationship between humans and animals which generates different duties and not only the morally relevant capacities (Palmer 2010, pp. 38─39).

Having the different values of environmental ethics and the relational approach in mind, I will draw a comparison in regard of the kakapo-rat example. The native kakapo and the invasive rat in New Zealand are both morally considered in the relational approach as both species belong either to the taxonomic class bird or mammal, which are included in the moral community. Palmer, does not give greater value to animals, which are endangered or native, in other words she does not deny the value of rats on basis of the threat, which they constitute against kakapos. Consequently, just on basis of the capacities, the endangered kakapo and the invasive rat are considered to be equal. Of course, the kakapo chicks or adult birds might suffer from predation, but Palmer does not consider predation as a harm, but rather as a misfortune as no moral agents are involved.

Individualistic animal ethic approaches, which are solely based on capacities like the utilitarian or the rights view, would certainly fail to save the kakapo individuals, as kakapos and rats are equally considered in those mentioned individualistic animal ethic approaches. Intrinsic values

in Regan's rights approach are based on the status "subjects-of-a-life", which is simply spoken attributed to mammals over one year. Regan would argue that no intervention is needed, as the predation by rats does not constitute a harm in his sense, because they are no moral agents, and a rights infringement can only be done by humans (moral agents). In this view, it would be more condemnable to kill rats in order to save the kakapo, as this would constitute a rights infringement, than letting the rats prey on the kakapo, which does not violate the right of a *subject-of-a-life*. Likewise, utilitarian ethicists would suggest no intervention, because the loss of a few kakapo individuals due to predation, would obviously mean less suffering than eradicating thousands of rats in order to save these birds. By contrast with those solely on capacities orientated views, Palmer provides another factor which must be morally considered ─ the context and relation of animals toward humans.

Comparable with other individualistic animal ethic views, Palmer as well rejects the prima facie harm (eradication) of the exotic animals that prey on the kakapo, just on the basis that the rat is an invasive alien species in this ecosystem. Just as well it is prohibited to harm individual kakapos. Palmer is able to factor in the context and relation, which therefore means, that the circumstance that humans are responsible for the introduction of predators to New Zealand, could make a great difference in treating animals – in contrast to other individualistic animal ethics approaches. The unintentional introduction of rats to a predator-free habitat constitutes causal harm, originating from humans. Even if predation is not innately considered as harm, but rather as a misfortune, as the suffering caused by predation is (commonly) not human origin, in the case of the introduction of a predator, the predation in the kakapo-rat example could be considered as a *harm*. In other words, as humans are responsible for the predation on kakapos, the under normal circumstances morally neutral predation (because there is no moral agent involved) converts into a human-caused harm. A hunting dog whose owner commands him to kill a hare is not responsible for the suffering of the prey animal but rather the owner, who gives the command. The dog acts just as an elongated arm of the human's induced harm. By following Palmer's theory, we can conclude, that predation becomes a harm only under the fact that humans are responsible for this predation, which would be in Palmer's sense causal harm. Although the direct harm stems from the exotic predators (rats), the indirect harm derived from humans, who brought the rats in such a precarious situation. On basis of this argumentation, different treatment in terms of positive duties towards kakapo individuals becomes relevant, due to the vulnerable situation in which the birds are because of the (not intended) human caused introduction of rats to New Zealand.

In summary, Palmer is not able to support wildlife management measures which are implemented in New Zealand in order to save the kakapo on basis of capacities, as mammals and birds are both equally valuable. Rather these measures are in favour of the moral values supported by environmentalists, as native species and the New Zealand's ecosystem are intrinsically valuable and not the individual animals themselves. Those environmental ethics notions are contradicting with the values defined by Palmer, who does not value entities like species or ecosystems.

However, Palmer's moral consideration of relation and context enables her to distinguish between the kakapo, which is indirectly harmed by humans (and directly harmed by the introduced predators), and the introduced predators, which are harmed in another way by humans as well, as they were brought into a situation by humans, in which they need to prey on the kakapo to sustain themselves.

In the following chapter, I will focus on the duties, which are generated in environmental ethics and the relational approach based on the above depicted values with respect to the kakapo-rat case.

3.4.4 Duties in the environmental view

Environmental philosophers, who advocate environmental ethics and value entities like species rather than individuals, argue that sacrificing individual animals in order to preserve an endangered species does not constitute a moral conflict. It is even seen as a duty to assist endangered species in the best possible way, which is actually done in wildlife management. In New Zealand, a duty to preserve the kakapo would mean to get rid of introduced predators, since they are a threat to the native fauna. The introduced predators in New Zealand are a threatening factor for the birds, but what is at stake here beside the fact that they constitute such a threat, is that they are considered an invasive alien species. As I depicted before, environmental ethicists differentiate strongly between native and exotic species (Chap. 2.2.1 The concept "species" and species categories, p. 14). Exotic species are, simply spoken, those which did not evolve in a certain habitat and were introduced by humans, therefore exotic species are commonly considered as a threat to the stability of the habitat and its native inhabitants, that must be eliminated. Even if they are not a risk factor for the native fauna, some wildlife managers would see a duty to restore the habitat to an original state like manner. The argument behind this would be based on the concept "natural habitats", which has intrinsic value and hence there is a need to protect or restore this wilderness. But not all environmental philosophers are in favour of intervening in the wild at some locations, as it undermines the

concept of "wildness" and "untouched nature" (Rolston III 1989, p. 134). Some environmentalists like Rolston even base the justification for hunting on the claim, that this action is a *natural* one, which is performed by many species and thus hunting is unproblematic (Rolston III 1994, p. 123).

Most wildlife management methods for minimizing pest species are implemented in forms of killing or even eradicating the animals. How many animals are sacrificed in favour of an endangered species does not morally matter, the main issue here is to get rid of the pest species in order to save (by the exotics) threatened species. In New Zealand a lot of eradication programs have been implemented, this was mostly done with air-spread poison (Bellingham et al. 2010, p. 117). Such methods are quite successful, as some islands are made completely predator-free, which might be now "safe" places for the kakapo. The fact that millions of rats were and are killed in favour of 157 kakapos (IUCN 2016) is morally completely justifiable in an environmental ethics view, as the management actions contribute to the kakapo protection. Similar to Palmer's approach, duties are generated when animal species are *threatened by human actions* in some interpretations of environmental ethics. As the introduction of exotic species is a great ecological problem and humans are responsible for the spread of the alien predators on the New Zealand's islands, environmental ethicists claim that intervention (in form of protection of endangered species) in the wild is required (Katz 1983). Furthermore, since species possess intrinsic value, according to most current environmental ethics views, it would be plausible to provide assistance to animals of an endangered species, that are not harmed by humans, but by a natural disaster.

Duties to preserve a species may not even necessarily provide good living conditions for all individuals of the species, as they function only as instruments to establish a healthy (intrinsic valuable) population. With this notion in mind it might be morally permissible to even sacrifice some members of endangered species or confine some individuals to investigate their behaviour and needs in order to develop more appropriate methods to protect them. Both *in situ* and *ex situ*[27] conservation techniques are very vital for today's wildlife conservation, whereas *ex situ* measures should be seen primarily as complimenting factors of *in situ* measures (CBD 1992, Article 8/9). Furthermore, the promotion of conservation of the ecosystem and natural habitats is paramount (CBD 1992, Article 8/9). *In situ* measures might be seen as supporting the welfare of animals more than *ex situ* methods, because within an *in situ* project animals remain in their

[27] *In situ* management measures are implemented within the habitat of a particular species, and *ex situ* measures are outside of the natural habitat of a species, e.g. in a zoo or rescue station.

natural habitat. Although *in situ* measures might not conflict with the welfare of the endangered animals, these measures might conflict with the welfare of *undesired* pest species (Marks 1999, 2003). Wildlife managers in New Zealand are aiming at getting rid of all the exotic predators which endanger the populations of native species. In general, invasive alien animals are a thorn in most wildlife managers side which have to be eradicated, in order to reconstitute a habitat, that almost resembles the original state.

The duties, which are generated in an environmental ethics context are in accordance with most actual wildlife management measures, as they strive for SC.

Since SC is a very complex issue, that is interlinked with inter alia politics, economics, science and the ecosystem, the responsibility for conserving a species is mostly considered to lie with scientists or politicians rather than with all humans. Mostly there are very specialized organisations, like the kakapo recovery team in New Zealand, which deal with the conservation of an endangered species. When dealing with entities like a species, humans tend to hand over the responsibility to a group of specialists, who possess the skills to face the problems of species loss. Whereas in an individual-based view, like the relational approach, all moral agents have both a negative duty not to harm the individual animal which they encounter and in some cases positive duties to assist, if they are the causal reason for the animal's suffering or indirectly benefit from harmful activities. A further complexity is that it is not that easy to find a responsible person, or group of persons for species loss. Even if scientists discover the reason for species loss, e.g. that climate change, it is not as simple as in an individual-based ethics to figure out, who is responsible and who has a duty to assist an endangered species. It might be even detrimental to the species if too many people engage in the *in situ* SC, as they might disturb the animals or spread disease, (what might be the case in the Orang-Utan rescue station (Sumatran Orangutan Society 2016)[28]). Of course, there could be a duty to donate money in order to implement certain wildlife management measures, but a duty to engage in a wildlife management program would be implausible and even counter-productive. Some people might change their habits in order to e.g. counteract the climatic change, but most people cannot contribute to SC in form of wildlife management in an active way. Consequently, the question arises if every person has a duty to prevent species loss, or if the duty to counteract the loss of species is attributed to just a group of specialists. As the answer to this question would exceed

[28] Disease risk of orang-utan: www.**orangutans**-sos.org/documents/715

the frame of this work, I will leave that question open and will go on with another prominent question in environmental ethics, namely the legitimation of intervention into the wild.

Tightly connected with the questions about the values and duties in environmental ethics, is the question of whether intervention in the environment is legitimated or not and how such an intervention should look like. For this reason, I will shortly discuss the interpretations suggested by environmental ethicists about the duty to intervene in the wild. The opinions about intervention in the wild differ between some environmental philosophers. Either environmental philosophers are in favour of intervention or argue against intervention into the wild. Some environmental ethicists argue in favour of the need to establish a healthy population of a certain species by managing them, for instance, Varner supports the "therapeutic hunting" when populations become too big (Varner 2003, p. 104). Whereas other environmental philosophers state that the "naturalness" and "autonomy of wild animals" should be preserved and thus human intervention in the wild should be avoided (Taylor 1986, p. 174). Rolston suggested there are no obligations to assist wild animals (Rolston III 1989, p. 134), because they are able to sustain themselves. According to him the only obligation is to leave the wild animals alone (Rolston III 1989, p. 134). This non-interference position pretty much resembles the suggestions of individualistic animal ethic philosophers like Singer and Regan (Regan 2004, p. 357; Singer 1996, p. 361).

Palmer mentioned one interpretation (although this is not the interpretation, that she favours) of "wildness" as a negative relation of animals to humans (Palmer 2010, p. 81), which is advocated by some environmental philosophers like Preston. Preston (2011, p. 464) stated that "the presumption central to environmental ethics is that human actions need to be circumscribed in such a way that the human-independent processes remain intact". Elliot refuses intervention in the wild, because it would reduce the wildness of a habitat or a species and would constitute a "fake nature" that is less valuable (Elliot 1982). That means a human-modified habitat does not have the same but rather a lower value than a habitat that is not altered or controlled by humans (Elliot 1982, p. 383). Logically in course of an ethical view that attributes value to the status *wild,* a primary rainforest would be morally more valuable than a rainforest that is the result of a reforestation project even if the two forests fulfil equal ecological functions. On the contrary side there are environmentalists, who strongly recommend intervention in the wild, as otherwise species would get lost or habitat would degrade to an irrecoverable state (see Hutchins and Wemmer 1986). If environmentalists attribute greater value to the conservation of species in order to save the species per se and not the status *wild* as well, they would certainly defend the duty to intervene in the wild in order to save a species from extinction. Otherwise

the implementation of conservation measures to conserve a species, would be more difficult to justify, if the status wilderness is morally valuable. For the purpose of this work I will focus on environmentalists or respectively conservationists, who argue in favour of intervention, in order to guarantee a more precise comparison between Palmer and this interpretation of environmental ethics. It is not the purpose to discuss the topic whether it is legitimated to intervene or not, but rather how would an intervention look like in Palmer's view compared to an intervention based on environmental ethics. Likewise, conservationists in New Zealand are proponents of intervention in the wild as there are extensive wildlife management measures implemented in New Zealand, on which I am focusing. With this in mind, I will not further analyse the concept "wildness" as a form of negative relation to humans, or in other words the absence of human intervention in the wild (for further reading see Taylor 1986; Rolston III 1989) and will go on by debating what the intervention looks like in environmental ethics and in Palmer's approach.

The goal of conserving the kakapo species including all management measures, which are needed to preserve this endangered species are justified by the intrinsic values, which are attributed to (charismatic or/and endangered) species like the kakapo (Sandler 2012, p. 4). Intrinsic value is not substitutable or replaceable, thus the loss of a species means that the value is lost forever. An environmental ethic that focuses on the preservation of valuable species, biodiversity and ecosystems can justify the moral obligation to intervene in the wild (Katz 1983). Proponents of wildlife conservation would highly recommend the intervention in the wild, as pest management methods have had a beneficiary effect on the population size of some endangered species (Hutchins & Wemmer 1986, p. 122). The eradication programs on some islands of New Zealand surely contribute to the increase of the population size of kakapos, even though the increase is very slow (Bellingham et al. 2010). In ascribing moral value to species and not to the individual animal, there is no moral problem about culling exotic animals, therefore the eradication programs on New Zealand's islands might be even morally obligatory, as long as it is beneficial for the survival of the species kakapo.

Not only endangered species are in the focus of wildlife management, also abundant animals, whose population size increases very rapidly "must be managed" in the environmental ethics view. Such (overabundant) animals like the deer in North America might "destroy" the habitat by overgrazing, or in other words contribute to the maturing of the forest, which means that food sources are reduced and thus constitute a threat to other species in this habitat or to their own population (Klein 1981, p. 120). Of course, also anthropocentric arguments are used to justify the minimization of wild animal population in wild life management, for instance due to

economic reasons, which might be the case considering harvest losses due to wild boars. However, these justifications are not morally relevant in environmental ethics, because the main goal is to preserve the (valuable) ecosystem and healthy animal populations, whereas for instance economic benefits for farmers would not be a sufficient justification for culling a wild animal population. Under circumstances in which a population might be threatened by overpopulation, hunting is a very commonly recommended practice (Varner 2003, pp. 104). In a pro-intervention environmental view, hunting of animals which overcrowded a habitat and might be detrimental for their own and other wild animals' basis of existence, is legitimated or even obligatory in an environmental view. Individualistic animal ethics philosophers though perceive such a (pro-hunting) position, even if it would be promotional for some wild animals, more critically.

A very important notion about hunting or any other way of wildlife management, triggers the idea that humans have some kind of higher status within nature, which enables them to manage wildlife. Most individualistic animal ethic positions emphasize either rights similar to humans or call for similar consideration of animals, what makes it difficult to argue in favour of hunting. Especially the attempt to legitimise hunting on basis of the argument, that humans know how the ecosystem functions and how to steer natural processes which constitutes, figuratively speaking, an upgrade of humankind above other animals, would incur criticism from individualistic animal ethic philosophers. The attribution of value to the *natural* environment, and the consequential interpretation that humans have duties to conserve these values can mislead to the thought that humans have some kind of higher status above nature, which enables them to dominate over wildlife.

By investigating the kakapo example, it becomes obvious that the species would be lost, if there would not have been intense efforts to protect them from introduced predators. Therefore, it is difficult to argue with the "wildness argument" in this case, because the survival of the kakapo is *everything else than natural*, since great human wildlife management effort was needed to protect the remaining birds of this species. Rather the argument of either intrinsic value of a species but also their instrumental values could serve as a sound basis for conserving the kakapo. The pursuit for preserving SC values result in duties to counteract the kakapo loss, e.g. by culling invasive alien predators.

3.4.5 Duties in the relational approach

In the following chapter, I will analyse both negative and positive duties, according to Palmer, toward native birds but also exotic predators in New Zealand. Generally, there should be no

prima facie harm to both groups of wild animals, no matter if they are native or exotic. In order to determine, if special obligations toward either the kakapo or the rat are generated, I have to reveal the relation of the two wild animal groups toward humans.

i. The native species ─ kakapo

For 730 years, since humans settled on the islands of New Zealand the first time, the environment was altered in form of urbanisation and establishing infrastructure, but also by introducing exotic animals and plants. Both the *human-caused* habitat change and the introduction of exotic animals constitute harmful circumstances for the New Zealand's native animals. The harms caused by introduced predators are of indirect kind, as humans *just* assist them (intentionally or unintentionally) to spread over New Zealand, which led to the situation that exotic predators put massive hunting pressure on the native birds. The kakapos are in a very vulnerable state, since humans continuously cause direct (due to hunting in former times) and indirect (by the introduction of exotic predators) harm to the native birds. As the risk of further introduction of exotic predators due to shipping or tourism has not been banned so far, the harm could be considered as an ongoing (continuing). At this point, we can see parallels to Palmer's polar bear example: The harm was not intended and it was not intended to harm a particular species, it was more or less a misfortune of the past, which is nowadays recognized as a harm. Furthermore, the actions are collective actions, thus it is difficult to designate the responsible person for this harm and the action, which constitutes ongoing harm, although humans now recognised the detrimental effects of their actions. On basis of humans' liability for this harm-causing circumstances, special obligations toward the wild kakapo are generated. Thus, similar to the polar bear example, mentioned by Palmer, obligations to counterbalance the harm toward the kakapos are required, by e.g. protection against predators. The problem we can detect in the kakapo example compared to the polar bear example, is that in the case of the polar bears nobody severely suffers from the counterbalance measures in order to protect the animals, but in the kakapo example the predators may suffer because of diverse management methods.

Basically, Palmer does not argue for prevention of predation, she even states that prevention of predation might harm the predators (Palmer 2010, p. 152), as the predators need to hunt in order to feed their own pups and ensure their own surviving. From this perception an intervention in the difficult kakapo-rat case would not be recommended. But under the light that the kakapo evolved without predators, and shows only minimal flight response and therefore is situated in

a very vulnerable (unescapable) state which is obviously human-caused, Palmer would also recommend intervention.

The following cat–chick–magpie example by Palmer should serve to clarify this situation (Palmer 2010, pp. 152─158): An European magpie attacks an unprotected blue tit nest, all chicks die except for one, which falls out of the nest. The panicky twittering chick calls the attention of the neighbour's cat. Palmer argues that the prevention of the magpie would be a harm toward the predator, which is prima facie prohibited in her view (Palmer 2010, p. 156). In contrast the prevention of the cat would not impair the cat's basic interest to survive, therefore an intervention would perhaps hinder the cat's interest to play with the prey, which definitely has much lower weight than the basic interest of the chick to survive. Furthermore, Palmer factors in that the cat would not be there without humans' assistance, which generates a weak obligation to intervene (for the cat holder) (Palmer 2010, pp. 152─158). By applying this conclusion to the kakapo-rat example, some problems arise. The rat is in a similar situation as the European magpie, they hunt in order to survive, which implies that they have a basic interest to sustain their survival. Whereas the rats' presence on New Zealand, could be compared with the position of the cat as well, regarding that they would not be there without humans' assistance. This means the rat shares characteristics with the European magpie *and* the cat, which makes it rather difficult to attribute duties toward the rats and the kakapo, as it would either harm the one or the other. Humans are responsible on the one hand for the harm caused against the kakapo but on the other hand humans are also responsible for the harm against rats, when wildlife managers try to assist the kakapo. Furthermore, if there is a duty to assist the kakapo, might there not also be a duty toward the rat, because they were unintentionally brought into a situation by humans, where they need to hunt native birds to sustain themselves? Thus, there is a conflict between the interests of survival of rats on the one hand and the survival of the kakapo on the other hand. The predation on native birds, as I mentioned before is not equal to classical predation situations, where no moral agents are involved. Unlike to the predation situation, where prey and predator are in an evolutionary arms race, which means that predator and prey constantly adapt to each other in the same habitat and have a kind of "fair play", the predator-prey relation of rats and kakapo is in an imbalance, because the kakapo has no chance to adapt that fast to this relatively new predation pressure. A comparable, though exaggerated situation, would be the release of a lion in an unescapable rabbit cage, where the rabbits as well as the lion are in some kind of helpless situation. The rats (and other exotic predators) are in a similar position as the lion. It would be implausible to blame the lion for killing the rabbits, resulting in shooting him to prevent the killing of further rabbits. The real offenders in this case

are the humans, who brought the lion in such an unescapable situation. One factor distinguishes the rabbit and the kakapo case, namely the intention. The rats are considered as introduced unintentionally to New Zealand, whereas the lion was placed intentionally into the cage. Therein lies a problem, because Regan stated that an unintentional harm does not require reparations (or in Palmer's context *special obligations*). As in the rights approach, only the intention matters and not the consequences this statement seems plausible, but Palmer claimed that one cannot completely ignore the consequences (Palmer 2010, p. 30). In Palmer's approach, when an action is foreseeably risky, even if the harm is unintentionally, special obligation are generated (Palmer 2010, p. 101). It might be that the first settlers in New Zealand did not divine the impact of introduced species to the native fauna, but as there is scientific evidence today, that introduced species could cause the extinction of another species, shipping and tourism to New Zealand could be considered a risky activity, as a reintroduction of exotic predators is very likely.

Eventually humans are the indirect cause of the kakapos' vulnerable state due to introduction of exotic predators. Even though the rats kill kakapo chicks and eat the eggs of the kakapos for their own survival, one could argue that they would not be there without human assistance, which generates an obligation to assist the kakapo. By taking all contexts and relation into consideration, there remains the question, how wildlife managers could assist the kakapo without harming the rat. After investigating the harm toward the kakapo and the consequential duties that arise, I will investigate the (vulnerable) situation of the rat in greater depth.

ii. The invasive alien species ─ rat

As I mentioned already before, not only the kakapo is in a vulnerable situation, but also the rats were brought (even if unintentionally) in a vulnerable situation regarding today's common eradication programs. Humans assist the exotic predators to populate New Zealand, in some cases this transfer-assistance was intentional like with domesticated animals (cats, pigs, ect.) but in some cases the animals came along as blind passengers (which is assumed in the case of rats). Nowadays, these so-called pest species are persecuted and humans try to eradicate them by disregarding the fact that actually humans are the reason for their spread and conversion into a pest species on New Zealand. From the first settlers on until now humans are responsible for the introduction of the exotic predators which have been causing harm to the native bird species for centuries.

To prevent the rat from causing harm, in the worst case by eradicating them and in the most humane way by chasing them away from kakapo nesting sites, will cause surely harm to the

rats as well. In the one way or another, management methods may cause starvation of the rat or they are killed anyway by poison. Two basic interests (the survival of rats and kakapos) are in a conflict, as a result of human activities. Thus, special obligations toward the kakapo *and* the rats might be generated.

Palmer does not exclude cases in which harming in order to assist is permissible in her approach (Chap. 3.2.5 Palmer's justification for painlessly killing or harming in order to assist wild animals, p. 41). Although the killing of million fold more rats than the total number of kakapo individuals, would not be morally acceptable in her view (Palmer 2010, p. 68, p. 77, p. 146─148). In a situation, which requires harm in order to assist, Palmer implements Regan's miniride principle (Palmer 2010, pp. 146─148; Regan 2004, p. 305). According to this utilitarian-influenced principle it would be highly condemnable to eradicate so many more animals in order to save a handful individuals. Nevertheless, Palmer would propose to assist the individual kakapo and the rats as well – such an assistance might be implemented by using more humane pest species reduction techniques, such as reproduction inhibitors. The answer to the question of how to assist the kakapo, while trying to minimize the harm to the rats, is a very tough one, as alternative (less harming) methods like inhibition of the fertility of the rat are still difficult to implement (Jacob et al. 2008). The type of assistance differs between kakapo and rat, as birds are directly harmed by rats and the rats are in the position of the culprit, who must be reduced in common-sense SC (not according to Palmer). Although the assistance of the kakapo might give some reason to reduce the rats, it definitely does not justify eradication programs, as this procedure does not comply with the miniride principle Palmer recommends in such situations. After all, one should keep in mind, that todays' "brutal slaughter"[29] of rats (and other alien animals), which are made dependent on native birds as their primarily food source, is not morally justifiable within Palmer's approach.

In comparing wildlife management in New Zealand, which is oriented towards environmental ethical values, and Palmer's approach one can notice that the duties in both approaches diverge strongly.

There should be no prima facie harm done to wild animals, only under the condition of good justifications, Palmer allows painless killing of animals (Palmer 2010, p. 137, p. 148). As the assistance of kakapos might be a good reason for painless killing of exotic predators, the harm,

[29] The eradication of rats is an ongoing method to minimize the threat to native birds in New Zealand, like this article with the title "New Zealand Students Can Buy Beers with Rats" illustrates: https://www.vice.com/read/new-zealand-students-can-buy-beers-with-rats

which is done to rats by killing them would considerably outweigh the assistance provided to the kakapo. To be clear, even if Palmer would allow the painless killing of rats on New Zealand, because we assume for the moment, that there are only few rats which constitute a threat, she would not justify the killing on basis that the rats are an alien species on New Zealand, but rather on basis that they are harming birds, what would be not the case if humans had not introduced them to New Zealand. Assuming there are animals introduced to New Zealand, which do not harm the native birds, Palmer would argue against the killing of those *harmless* exotic animals, as they do not cause harm to any other animals. Whereas some wildlife managers would argue for the eradication of these animals, as they are introduced to a foreign habitat, by human assistance, which means that the natural habitat is altered by humans. With today's eradication methods, the protection of the remaining 157 kakapo individuals (IUCN 2016), would not be permissible by following Palmer's relational approach. A change of wildlife management methods by shifting to less harming methods could constitute a completely different picture e.g. by inhibiting the reproduction of rats. Contrary, SC is an essential part of environmental ethics which see pest management as morally permitted or even obligatory, in other words harming an individual does not matter as long as such an action does not harm the entire species.

The intervention in the wild is permitted in the relational approach in forms of special obligations toward wild animals, which are harmed by humans (Palmer 2010, p. 77). Since Palmer focuses on the causal relation of harming an animal, there is a very large scope of situations,[30] in which a duty to assist could be generated. The intervention in the wild, if there is no human-caused harm, is not a duty following this view. Palmer just refers to harmful situation not caused by moral agents to assist anyways in order to support positive character traits in humans. In this context, it is not prohibited to assist wild animals, which are suffering due to other reasons, then human-caused e.g. natural disasters, but she states that striving for a good character could constitute at least a weak obligation to assist (Palmer 2010, p. 150).

Palmer does not see humans as a counterpart of nature:

[30] The moral relevance of causal relation referring to harms to wild animals, might be even a too widely defined scope. Since, our world is based on causal relations, there might be many situations, which generate special obligations, which are not easily manageable in practice. An additional factor might reduce this problem of excessive moral responsibility; a suggestion for such a limiting factor could be if the harm is done intentionally or unintentionally.

> It is better to integrate humans into the natural world and to develop harmonious living than to work with an idea of wild nature as entirely separated from human cultures. (Palmer 2002, p. 28)

In not building up a nature-culture dualism, it is easier for Palmer to justify an intervention, as she does not figure in values like "wildness" or the "autonomy" of wild animals.

Despite this, Palmer permits and, under some circumstances even demands intervention in form of assistance in the wild. She is eager to sustain the *no-contact LFI*, which implies that there are different duties on the basis of different humans' relations toward domesticated and wild animal, even if they share similar capacities. In the situation of New Zealand, as I depicted before, there are duties generated toward the kakapo as well as toward the exotic predators, as in both cases there is (indirectly and directly) harm caused by humans. Due to extensive effort and intervention in the wild, it is questionable if species like the kakapo are still *wild*, as they are not locally and behaviourally wild anymore (Palmer 2010, p. 64). They could only be considered as "constitutive wild" on a domesticated-wild spectrum, which might also get lost after years of selective and captive breeding. Rippe (2008, p. 222) criticised the intense effort of conserving the kakapo, because the intervention resembles rather the management of a zoological garden with a big enclosure for the kakapos (he refers to the two predator-free islands), than an *in situ* intervention.

The duties which are generated toward the predators should be rather called "the stopping of harm" than assisting to survive, as they are able to survive on their own. In practice this demand for special obligations in form of assistance for exotic predators and the native kakapo is rather difficult to apply, as the assistance of the kakapo would harm the rat and the stopping of culling (harming) of the rat could be detrimental for the kakapo. Of course, species or the status of a species (endangered or abundant) or the humans' emotions toward certain species (charismatic or pest species) does not morally matter in Palmer's approach, but it is interesting to notice, that the change of attitude toward an animal, might change the treatment of them for the better. In order to stop the harm toward rats (by following the relational approach) there is not even assistance needed, but rather acceptance of these animals. Nonetheless, if there were wildlife management methods, which do not (seriously) harm the rats and simultaneously reduce them e.g. by sterilizing them, the kakapo could be protected. As I depicted in chapters before, the prima facie harm of animals is prohibited in Palmer's approach (Palmer 2010, p. 68), what made the current management methods like eradication programs unjustifiable.

As long as the number of individual rats exceeds that of threatened birds to such an enormous extent, there is no chance of arguing for the preservation of the kakapo individuals through harming the rats, because in such situations Palmer suggested the application of the miniride principle. The situation would change, if all threatened native animals would in numbers exceed the amount of exotic predators, who are directly harming those animals. If we assume that the depicted situation is the case also on New Zealand, it might be a duty in Palmer's approach to kill the predators in order to prevent the native (threatened) animals from harm. Similar to the wild-elk disease case (Palmer 2010, pp. 146─148), Palmer might argue in favour of the duty to assist (the native animals), what implicates the harm (killing) of the predators, by applying the miniride principle. The argumentation of assisting the native birds by harming the exotic predators is simply based on the fact, that humans are responsible for the harm of the native birds, which is directly done by the exotic predators.

3.5 Response to the hypothesis

After analysing the situation of New Zealand's native fauna and the introduced species from two different perspectives; from an individualistic animal ethic approach by Palmer and an environmental position, I will end this thesis by responding to my hypothesis and discussing the remaining problems and future perspectives within this important ethical discourse. Although Palmer presented a very progressive individualistic animal ethics approach, which might appear as a bridging theory between classical animal ethic approaches and environmental views, I have to claim that it is in *not* possible to save the kakapo by following Palmer's approach. Although Palmer certainly creates an approach that covers many species that could be conserved, by following her negative and positive duties toward individuals, yet in the special case of introduced species there is no chance to legitimize the culling of a thousand-fold more animals in order to assist a native and endangered species. Cases, in which no harm is necessary to assist preventing animals from death, Palmer provides a convincing theoretical framework, which has the potential to save a species, but in cases like the presented rat-kakapo example, this ethical approach *fails* to save a species. Assuming that the introduction of predators is just at the beginning and the number of native animals exceeds that of the threatening introduced predators, there might be a duty to assist the native species by eradicating the introduced species. However, in a situation like it is nowadays in New Zealand an intervention by culling the introduced predators would undermine all individualistic animal ethic principles that are embedded in Palmer's approach. If the harm toward the predators could be minimized by a change of method e.g. inhibition of the reproduction, this would alter the outcome, as it would be a positive duty to assist the kakapo by reducing the predators in a more

humane way. But culling or eradicating of the invasive alien animals, as commonly practice nowadays, especially on islands, could not be justified by following Palmer's approach, which leads me to the conclusion that the theoretical framework of the relational approach does in some cases provide a convincing theory in order to save a species but not in all cases. Finally, I try to reveal the limitations in Palmer's relational approach, which could be investigated in further analysis in order to improve this progressive approach regarding the problem of exotic species.

4 Discussion

After evaluating duties and values in environmental ethics and Palmer's relational approach, I will define and discuss the limitations of Palmer's approach considering wildlife management (especially pest management) in greater depth.

Most common individualistic animal ethic approaches emerged as a response to the problematic husbandry conditions of farm animals and also the consideration of pet animals was soon discussed a lot. Exceedingly few individualistic animal ethic approaches address the moral consideration of wild animals. The reason for this main focus on domesticated animals in animal ethics might be, that mankind is permanently in contact with those animals and interferes with their lives enormously. As the contact with wild animals is, especially in highly urbanised areas, not that close in contrast to domesticated animals (especially pet animals), wild animals have been rather neglected in the individualistic animal ethic approaches. A further cause for this development might be, that humans may not perceive the detrimental effects of humans' intervention in the wild as a harm to wild animals but rather as a harm to the ecosystem. For this reason, wild animals are mostly taken into account in environmental ethics, but from an animal protection view (individualistic animal ethics) wild animals mostly came badly off in the framework of environmental ethics. This might convey the impression, that domesticated animals are worse off because humans entirely alter and control their lives and therefore the focus of protection should be on maltreated farm animals and pet animals. The LFI exactly states this differentiation between domesticated and wild animals, which is also used by Clare Palmer to justify this different treatment, but only on the basis of different relational states (vulnerable states) and types (causal relations) toward those two animal groups. If wild animals are not harmed by humans, there is no need to assist, but when humans influence the life of wild animals in a badly way, the same duties towards them are valid as humans have to domesticated animals. However, humans have intervened enormously in nature with the result that humans are the originators of various threats and harms toward wild animals as well. Hence in recent debates, like in Palmer's approach, wild animals are moved into the centre of animal ethic issues. Palmer manages, on basis of contexts and relations, to expand her scope of moral consideration in form of positive duties to wild animals in contrast to other animal ethics approaches, which almost solely based on capacities and the *no-harm principle*. Topics like the capture of wild animals for zoos or hunting of wild animals but also the treatment of wild animals, which are harmed due to human actions become more and more relevant in the community of animal ethic philosophers. Questions about the negative but also positive duties towards wild animals have been emerged and various attempts to find a solution for the

treatment of wild animals have been undertaken and discussed. Of course, some situations are less complex than others and hence easier to evaluate, as we saw in the course of this thesis. It seems plausible that harming a wild animal deliberately *just for fun* such as trophy hunting or caging up wild animals in inappropriate cages is morally condemnable – in contrast a moral evaluation of pest management might be more difficult following an individual animal ethics approach, as a second group of human-harmed animals is involved as well. Either conservationists try to conserve the kakapo and accept harming the introduced predators in order to stop the predations pressure, or humans just do not interfere in this precarious situation and accept the consequential harm which is done to the kakapo due to predation. Humans are the originator of both harming situations either toward the exotic predators, as they try to save the kakapo by eradicating those animals, but also humans are responsible for the harm to the kakapo, as they assisted exotic species to spread over New Zealand's islands. Cases involving invasive animals might appear like a vicious cycle from an individualistic animal ethics philosopher's point of view, whereas in an environmental ethics framework there is a clear answer to the problem, namely the minimization of the invasive and exotic pest species. The difficulties, with which individualistic animal ethics philosophers have to deal in this situation might be the reason that most (individualistic animal ethics) philosophers try to avoid issues about wild animals and often state, that we should leave them alone. Palmer can make a difference in contrast to other classical animal ethics approaches in as far as she figures in relational states and types and therefore can justify special obligations toward wild animals as well. This is also the case in the rat-kakapo example, but assisting the kakapo goes along with the harm of the rat and vice versa, quitting wildlife management against rats would have detrimental effects on the kakapo. However, both animal species are harmed by humans as they were brought in harmful situation, since the first alien species introduction.

Palmer cannot justify the eradication of rats, as the *no-harm principle* has stronger effects than the duty to assist in her approach. Palmer's approach operates on two levels, which are not equally weighted. Negative duties weigh much more than positive ones, as it might sound plausible that the active harm of an animal is a worse infringement of moral principles, than *just* refusing assistance. By implementing these principles, it would be worse to kill the rats in order to protect the kakapo, than assisting the kakapos to survive, for instance, by enclosing them in a safe environment (e.g on the predator-free islands). The two different levels of duties are based on very different qualities. One should not harm an animal because it has certain capacities, which defines the border of moral consideration, but one should assist an animal on basis of the relation toward this animal. The negative rights (the right not to be killed or

harmed), resembles completely those (negative rights), which are proposed in most individualistic animal ethic approaches. Philosophers mostly base negative rights on special capacities, like the ability to experience pain, or higher cognitive abilities. In other words, Palmer's approach does not differ, against first expectations after getting in touch with Palmer's *relational* approach, by no means from classical individualistic animal ethics views, like the rights approach of Tom Regan, when it comes to a complicated moral weighting situation like in the kakapo-rat example. As long as the *no-harm principle* in Palmer's approach is weightier than the duty to assist, the approach does not exceed the ethical framework of classical individualistic animal ethic approaches. Although the integration of relations, especially to wild animals assuredly expands the framework of the classical individualistic animal ethic approaches. Nevertheless, this "expansion" of individualistic animal ethics has only relevance in situations, where assistance toward animals is done without harming other animals. If harming an animal in order to assist another animal comes into play, the relations become irrelevant as negative duties outweigh positive ones. By highlighting this problem, it becomes clearer that there is not much difference to the classical individualistic animal ethic literature. What gives Palmer's approach a modern and attractive touch are the relations which has turned out to be irrelevant in case when we deal with the question about introduced animals and their detrimental effects on native species. To sum up Palmer's approach is in some cases compatible with environmental-ethics-based wildlife management methods but in principle she fails to justify the preservation of individuals of an endangered species, that are harmed by introduced animals, as the harm done to the introduced animals would exceed the harm done to the native animals. This recognition is also based on the fundamental problem between the values in individualistic animal ethic approaches and environmental approaches. Palmer does not value the species, she values the individuals, which makes it difficult to justify the conservation of a species, without figuring in the individual. In a situation, in which the amount of introduced animals would be lower than that of the threatened native species, there might be the duty to assist the native species, following Palmer's approach, as it would generate less harm than letting the introduced predators prey on the native animals.

A further limitation in Palmer's approach regarding the comparability with wildlife management, which is based on environmental ethics is the relative narrow scope of individuals that are within the moral community (only mammals and birds are included). This means that animals that are not within the moral community are not morally considered, therefore most animal species are not included. Animal species, which are necessary for the stability of the ecosystem (keystone species) might not be considered in Palmer's approach as they fail the

criterion to be within the moral community (e.g. the ability to experience pain). The protection of animals would only work with some classes of sentient animals. This notion is undermining the most vital principle in environmental ethics, namely the conservation of holistic values, entities like ecosystems, species but also abiotic factors. Palmer provides a justifiable reason for many protection programs, which include mammals and birds and in which harm is compensated and not more harm done in order to assist, which could be considered as a mere drop in the ocean. This is a great step in the direction of species conservation, but from an environmental point of view, this assistance would be insufficient in order to preserve species. Therefore, Palmer's approach could be understood as being one of the first steps to a bridging theory, but despite that she is attempting to provide a justifiable theory in which she calls to assist wild animals, in the case of a human-caused harm her theory is far away from a relevant reconciling potential.

Further perspectives for the development of this theory could be the question, if it would be beneficial for the relational approach to grant the relation and the resulting duties the same moral weight as the *no-harm principle*, as in the current circumstances Palmer's argumentation always relapse into the *capacity-orientated* classical animal ethics framework, although she titled her approach *the relational approach*. As relations to certain animals are very complex, it would be quite reasonable to base the theory on relations before figuring in capacity, as this would also expand the moral community, consequently also animals that are not sentient or less socio-cognitively able as mammals and birds could be taken into account. This notion means that also animals that are not considered in Palmer's approach could perceive assistance. However, the biggest problem still remains, as under the stronger weighting of relation, it might be permissible that exotic species could be reduced in order to assist the native species, when the harm, done to the kakapo is evaluated as being bigger than the harm done to the rats. One gets on very thin ice by recommending the eradication of individuals in a foreign habitat by following an animal ethics approach. There might even be the case that the total limitation to relation could even strengthen the moral conflict between Palmer's relational approach, environmental ethics and classical animal ethic approaches.

Even if Palmer has more potential to improve the situation of some animal species (by assisting them), compared with classical animal ethic approaches, as she calls for special obligation to individuals, which are harmed by humans, the fundamental problem between animal ethics and environmental ethics still remains. In some cases, there is certainly potential that both approaches suggest similar methods of assistance and duties but in most cases Palmer's approach does not permit assistance to animals, as they are not within the moral community or

the assistance of an animal species demands very drastic measures (e.g. pest management), which cannot be justified by following Palmer's approach.

5 Summary

Managing invasive alien species constitutes a moral conflict between animal ethicists and environmental ethicist, due to the value gap between the individual based animal protection and the holistic coined species conservation. To figure out the differences of moral valuing and argumentation between animal ethics and environmental ethics the example of exotic predators in New Zealand is very suitable. Since the 13th century exotic predators such as rats have been populating these islands and constitute a considerable threat to native bird species like the kakapo, which entailed intensive eradication programs. Management programs which necessitate the killing of animals to save a species have been subject of extensive criticism within individualistic animal ethics approaches. Killing animals because of their detrimental effects on other animals and because of their exotic status would not be a convincing reason to eradicate exotic animals, because the individual is of highest value in an animal ethics approach. Whereas following an environmental ethics approach which include species conservation, eradication programs are legitimized for being beneficial in saving a species. The value of species in environmental ethics overweighs the value of individuals, which means that individuals can be sacrificed for species conservation.

So far, the moral conflict between animal ethics and species conservation is insurmountable, although many philosophers face this conflict and try to reconcile these two approaches. Clare Palmer is one of these philosophers, who developed the relational approach which addresses the moral consideration of wild animals. Unlike most classical individualistic animal ethics approaches, Palmer bases her approach not solely on capacities, but includes relations between humans and animals as well. Causal relations (like making an animal vulnerable or harm an animal) are the basis for generating positive duties toward these animals, whereas on basis of capacities humans have negative duties toward animals similar to classical animal ethics approaches like those of Singer and Regan. Positive duties (duty to assist) are obligated in certain circumstances, whereas negative duties are weightier which means humans should not in any case harm animals without a good reason. Since Palmer is convinced that her relational approach could be accepted by environmental philosophers as well, there arises the question if it is possible to conserve a species by following Palmer's approach. Particularly interesting is the question considering the management of exotic animals like in New Zealand. In order to analyse this assumption, I phrase following hypothesis: *The relational approach developed by Clare Palmer holds the potential to result, without valuing entities such as species, in conserving a species by protecting individual animals, since she provides a convincing theoretical framework for an adequate moral consideration of wild animals, which therefore*

minimizes the conflict between environmental and animal ethics. A comparison between moral values and duties in Palmer's relational approach versus those in environmental approaches allows to examine this hypothesis. Palmer's view is an animal ethics approach, hence the individual is subject of moral consideration. In the New Zealand example humans are responsible for the harm against the native birds, e.g. kakapo, because of the introduction of exotic predators like rats – but they also harm the predators in course of wildlife management measures, who must prey on the native birds to sustain themselves. Following an environmental view, the reduction in form of killing exotic animals is the best solution to conserve the kakapo. Palmer would claim for a duty of assistance for the native birds, because they have become vulnerable due to humans' actions. Nonetheless the duty of assistance is based on the fact that humans violated the no-harm principle and not because of the status of endangerment or the fact of being native, which are common arguments for wildlife management measures in environmental ethics. As exotic predators where brought in a situation by humans in which they must prey on the native birds, duties to assist might be also generated towards them. However, there are circumstances in which painless killing to assist is less harmful, than non-intervention in the wild, which leads Palmer to apply Tom Regan's miniride principle, thus she cannot justify the killing of millions of rats in order to conserve the remaining 157 kakapos. One can argue that in situations in which it is necessary to kill animals to assist other animals in the relational approach the positive duties become negligible, because negative duties are weightier, resembling classical animal ethic approaches.

Consequential the hypothesis cannot be sustained. In some cases Palmer's theory has probably the potential to conserve endangered wild animals, but as characteristics like "native" and "exotic" or "endangered" and "abundant" have no value in the relational approach, wildlife management measures for the benefit of the kakapo in New Zealand cannot be justified by following the relational approach. The gap between the different values in animal ethics and environmental ethics cannot be overcome by applying the relational approach, despite there might be cases in which the proposed methods to save either animals or conserve a species might be congruent.

6 Zusammenfassung

Der Umgang mit Neobiota stellt Tier- sowie Umweltethiker vor einen schwierigen moralischen Konflikt, nämlich die Wertekluft zwischen dem individuenbezogenen Zugang in Tierschutz gegenüber dem populationsbezogenen Zugang im Umweltschutz. Um einen Vergleich zwischen den moralischen Herangehensweisen von Tierethikern bzw. Umweltethikern zu schaffen eignet sich ein praktisches Beispiel, nämlich jenes der Neobiotabekämpfung in Neuseeland, um die dort heimischen gefährdeten Vogelarten zu schützen. Seit etwa 730 Jahren, dem Zeitpunkt der ersten menschlichen Besiedelung von Neuseeland, wurden Ratten und andere exotische Prädatoren auf diese Insel gebracht. Diese bejagen seither die heimischen Vögel und haben sie teilweise an den Rand des Aussterbens gebracht. Daraufhin folgten drastische Schädlingsbekämpfungsmaßnahmen, um die verbleibenden Vogelarten zu schützen, wie zum Beispiel den Kakapo, dessen heutige Population nur noch aus 157 Tieren besteht. Bei der Legitimierung dieser Schädlingsbekämpfungsmaßnahmen teilen sich die Meinungen der Tierethiker und der Umweltethiker. Im Tierschutz steht das Individuum im Mittelpunkt der moralischen Wertung, dies bedeutet, ein Individuum darf nicht ohne guten Grund getötet werden. Im Falle der Neobiota in Neuseeland würde das bedeuten, dass die Ratten und andere fremde Arten nicht aufgrund dessen, dass sie in einem Land fremd sind getötet werden dürfen und schon gar nicht für den Schutz einer Art, da die Art an sich in der Tierethik keinen moralischen Wert besitzt. Hingegen beim Umweltschutz, der auch den Artenschutz umfasst, ist die Art von hohem moralischem Wert, der geschützt werden muss, auch wenn für dieses Ziel Individuen geopfert werden müssen. Im Falle Neuseelands würde das bedeuten, dass ohne weiteres Millionen Ratten getötet werden dürfen, um seltene Vogelarten zu schützen.

Der moralische Konflikt zwischen Tier- und Artenschützern ist bislang ein unüberwindbarer, obwohl viele Philosophen sich diesem Konflikt annehmen und den Versuch unternehmen eine Annäherung der beiden Konzepte zu schaffen. Clare Palmer ist eine dieser Philosophen, die sich in ihrem neu entwickelten relationalen Ansatz dem moralischen Umgang mit Wildtieren widmet. Im Gegensatz zu den meisten klassischen Tierethikansätzen, wie jene von Regan und Singer, fußt Palmers relationaler Ansatz nicht ausschließlich auf Fähigkeiten, sondern auch auf der Beziehung von Wildtieren zum Menschen. Für Palmer relevante Beziehungen zu Wildtieren sind etwa, dass sie durch den Menschen gefährdet wurden oder ihnen Leid zugefügt wurde und sie sich dadurch in einer verletzlichen Situation befinden. Wird einem Tier Schaden zugefügt oder wird es in eine verletzliche Situation durch den Menschen gebracht, so kommt diesem Tier, laut Palmer, ein positives Recht auf Unterstützung zu. Das negative Recht auf Unversehrtheit basiert jedoch wie in anderen Tierethikansätzen grundsätzlich auf den

Fähigkeiten, wie etwa der Leidensfähigkeit eines Tieres. Palmer unterscheidet somit zwischen positiven und negativen Pflichten, wobei den negativen Pflichten höhere Gewichtung zukommt. Infolgedessen ist es in ihrem Sinne unter keinen Umständen legitim ein Tier ohne guten Grund zu töten, Unterstützung ist jedoch nur in bestimmten Fällen verpflichtend, nämlich dann, wenn der Mensch für das Leid des Tieres verantwortlich ist. Da Palmer selbst überzeugt ist, dass auch Umweltschützer durchaus ihren relationalen Ansatz ohne Wertekonflikt verfolgen können, stellt sich die Frage, ob es durch die Anwendung von Palmers Ansatz möglich ist eine Art zu schützen. In diesem Sinne ist es besonders interessant herauszufinden, ob diese Behauptung auch in Bezug auf den moralischen Umgang mit Neobiota, welche in der zeitgenössischen Tierethik nur relativ selten Thema sind, richtig ist. Um diese Annahme zu überprüfen, formuliere ich folgende Hypothese: Clare Palmer formulierte einen sehr überzeugenden theoretischen Rahmen für eine adäquate moralische Berücksichtigung von Wildtieren – den relationalen Ansatz, welcher das Potenzial birgt eine Art zu schützen, indem man durch konsequente Verfolgung des Ansatzes Individuen schützt, ohne Entitäten wie Tierarten zu werten. (*The relational approach developed by Clare Palmer holds the potential to result, without valuing entities such as species, in conserving a species by protecting individual animals, since she provides a convincing theoretical framework for an adequate moral consideration of wild animals, which therefore minimizes the conflict between environmental and animal ethics*.)

Der beste Weg diese Hypothese zu überprüfen ist ein schrittweiser Vergleich der moralischen Werte und den daraus resultierenden Pflichten einerseits von Clare Palmers Ansatz und anderseits umweltethischen Zugängen. Palmers Ansatz ist ein tierethischer, daher ist das Individuum Mittelpunkt der moralischen Betrachtung. Der Mensch hat im Beispiel von Neuseeland zwei Schädigungen an Wildtieren zu verantworten, was die Pflicht zur Unterstützung dieser Tiere in Palmers Erachten generiert. Zum einen sind die Menschen für das Leid der Kakapos verantwortlich, aufgrund der nicht-intendierten Einschleppung von Ratten. Zum anderen wurden die Ratten in eine Situation gebracht, in der sie zum Überleben unter anderem auch native Beutetiere bejagen müssen. Aus der Sicht des Artenschutzes ist dieser Fall klar, die Ratten müssen in Gebieten in denen sie fremd sind ausgerottet werden, um die Gefährdung von nativen Wildtieren zu vermeiden. Palmer unterstützt grundsätzlich die Idee, dass den Kakapos menschliche Unterstützung zukommen muss, jedoch nicht aufgrund der Gefährdung oder des Status als natives Wildtier auf Neuseeland, sondern vielmehr, weil der Mensch den Grundsatz der Schadensvermeidung (no-harm principle) verletzt hat, indem er den Vögeln Schaden in indirekter Form, durch die eingeführten Ratten, zugefügt hat. Doch auch

den Ratten wird Schaden zugefügt, weil sie als Schädlinge bekämpft werden, trotz der Tatsache, dass der Mensch die Einschleppung der Ratten auf Neuseeland zu verantworten hat. Dadurch kommt den Kakapo-Individuen aber auch in gewisser Weise den Ratten das Recht auf Unterstützung zu, weil beide Tierarten vom Mensch in eine verletzliche Lage gebracht wurden. Jedoch, wie vorhin erwähnt, ist das schmerzfreie Töten von Wildtieren in Palmers Ansatz nur unter Vorbringung von guten Gründen erlaubt. Da sie das von Regan geprägte „miniride principle“ verfolgt, wenn es sich um Fragen des schmerzfreien Tötens als Form der Unterstützung handelt, ist es in ihrem Sinne nicht zu rechtfertigen, millionenfach mehr Ratten zu töten um die seltenen Kakapos zu schützen. Diese Ausführung verdeutlicht, dass in Palmers Zugang sobald es zu einer Situation kommt in der das Töten eines Tieres notwendig ist, um ein anderes Tier zu schützen, die Beziehungen zum Menschen und somit die positiven Pflichten ausgehebelt werden und nur noch die in der klassischen Tierethik üblicherweise vertretenen negativen Pflichten gültig sind.

Folglich kann die Hypothese nicht unterstützt werden. Palmers Theorie hat vermutlich das Potential in manchen Fällen gefährdete Wildtiere zu schützen, jedoch werden von der Umweltethik geprägte Werte wie „nativ“ und „exotisch“ oder „gefährdet“ und „nicht gefährdet“ in Palmers Ansatz nicht berücksichtigt, wodurch sich einige Artenschutzmaßnahmen, wie die zu Gunsten des Kakapos nicht rechtfertigen lassen. Die Kluft zwischen den Werten in der Tier- und Umweltethik kann somit auch nicht von Palmer überwunden werden. In gewissen Fällen gibt es sicherlich Übereinstimmungen bei der Handhabung der Maßnahmen durch Verfolgen von Palmers tierethisch geprägtem Ansatz und den Artenschutz, was somit einen Fortschritt in Gegensatz zu klassischen Tierethikpositionen darstellt, welche meist ein Eingreifen in die Wildnis und somit auch die Unterstützung von Wildtieren ablehnen.

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