

The rights of the wolf in the frame of international convention on the rights of nature.

Introduction:

It has been noted that since 1992 wolves have started migrating and colonising the French Alps from Italy.¹ So much so that there are now over 300 individuals in 25 packs across France² that have been spotted as far west as Massif Central.³ This has affected farmers, the rural population and local authorities in France. Thus this question has emerged, should wolves be re-introduced into the Alps since it is already happening naturally? One must bear in mind that how society regulates itself is through law thus this it is this context through which the issue must be addressed. This report will address the wolves; their origin in France, their role in the ecosystem and the concerns over them as well as the existing legal regulation protecting them at both an international and national level and whether the relatively new concept of the rights of nature could help.

Wolves:

Origin of Wolves in France

Wolves originated from Europe and the largest population are located in Italy within the Alps.⁴ In 1927 French farmers hunted Wolves to the point of extinction.⁵ In 1992 through a combination of the protection measures taken for the wolves and due to the parallel urbanisation, people's retreat to the cities, a pair from Italy crossed the border through the Mercantour National Park,⁶ which began the repopulation/ re-introduction of Wolves in France.⁷

The role of the wolf in the ecosystem

Wolves are adaptable, adventurous creatures that breed and spread fast. The wolf is a top predator also known as a quaternary consumer in its food chain. They are an Apex predator as they prey on deer and wild goat. The extinction of the wolf can have a

¹ Lost in France, 'Wolves in France' <http://www.lost-in-france.com/wildlife-in-france/311-wolves-in-france> accessed 5th August 2014

² WWF, 'A Turbulent Year for the Alps' famous three (wolves, Bears and Lynx) (20th January 2009) http://wwf.panda.org/what_we_do/where_we_work/alps/?154741/ accessed 5th August 2014

³ The Economist (The wolf returns, *Call of the wild*, Dec 22nd 2012) <<http://www.economist.com/node/21568656/print>> read 07/08/14

⁴ Linnell, J.D.C., Swenson, S.E. & Anderson, R. (2001) Predators and people: conservation of large carnivores is possible at high human densities if management policy is favorable. *Animal Conservation*, 4, 345–349.

⁵ Lost in France, 'Wolves in France' <http://www.lost-in-france.com/wildlife-in-france/311-wolves-in-france> accessed 5th August 2014

⁶ T Mc Namee, 'The return of Il lupo' *Animal Behaviour*, Natural History 12/96-1/97 http://www.kora.ch/malme/05_library/5_1_publications/M/McNamee_1997_The_return_of_il_lupo.pdf accessed 5th August 2014

⁷ Wolf and Humans <http://www.wolvesandhumans.org/pdf-documents/Rough%20Guide%20to%20Wolves%20in%20Western%20Europe%20article.pdf>

dramatic effect on the population of deer, wild goats and elks. The extinction of wolves caused them to increase considerably, which resulted in the destruction of food and habitat for many species. For example in Scotland there are forests where almost every tree is over 200 years old, due to the saplings being eaten by the deer and goats.⁸ This has led to humans hunting the deer which is not as resource efficient as it incurs, time, expense and materials as well as going against the ecosystem.

Benefits of the Wolves

In Yellow Stone National Park (hereafter 'Yellow Stone'), located in the Grand Canon wolves were reintroduced after a 70 year absence in 1995. At first there were 31 wolves in Yellow Stone, but this dramatically increased to 300 in the first ten years.⁹ The scientific analysis conducted throughout this reintroduction has demonstrated that the wolves notably improved the biodiversity of the region.¹⁰

After their re-introduction to the region, the wolves began to prey on species such as elk and deer that eat a considerable amount of the vegetation within the national park. As the population of elk and deer began to decline, the number of willow, aspen and cottonwood began to increase, which resulted in an increase in the population of birds and beavers.¹¹ Beavers are ecosystem engineers so by building dams from the vegetation they create niches for other species such as providing habitats for otters, muscats, ducks, fish, reptiles and amphibians.¹²

The wolves also prey on coyotes, resulting in an increase in the population of rabbits and mice, causing hawks to migrate to Yellow Stone because of an introduction of their prey.¹³ Furthermore, the ravens, bears and the bald eagles feed on the carcasses that the wolves leave behind, providing resources for other species and consequently increasing their likelihood to reproduce and survive.¹⁴ Moreover the bear's became more populous because there were more trees bears could forage from because the land was able to replenish, resulting in succession resultant from the reduction of deer and elk.¹⁵

The study demonstrates an example of the butterfly effect, and shows how the wolves have impacted the landscape; suggesting that they have ultimately been the key contributing factor leading to the change in the rivers and the landscape.¹⁶ This resulted in the rivers meandering less causing less erosion, channels narrowing, resulting in the formation of more pools. But the main reason for this was ultimately the regeneration of the forests, forming sturdier banks, so that they collapse less often, decreasing the effects of soil erosion.¹⁷ Thus stabilising water

⁸ Anneke Emery, Interview Colin Robertson 5th August 2014

⁹ Sustainable Man, 'How wolves change rivers' (13th February 2014)

<https://www.youtube.com/watch?v=ysa5OBhXz-Q> Accessed 6th August 2014

¹⁰ *Ibid*

¹¹ *Ibid*

¹² *Ibid*

¹³ *Ibid*

¹⁴ *Ibid*

¹⁵ *Ibid*

¹⁶ *Ibid*

¹⁷ *Ibid*

flow.

On the other hand, a research group at Colorado State University further investigated the impacts that wolves have on the Yellowstone national park. Their study questions whether wolves were the main contributing factor to the increase of biodiversity, the changes in the rivers and the reduction in the population of elk and deer. Within the Yellowstone national park, an undisturbed habitat for cutthroat trout remains, which once supported the largest inland population of cutthroat trout in the world. The cutthroat trout are a very important food source which provide a number of essential protein and lipids, and also a high source of energy for the grizzly bears. In 1994 it was reported that there was catching by humans of lake trout, which suggests this is when they were first introduced into the park, a year before the wolves were reintroduced into the park. The increase of lake trout has caused a reduction in the population of cutthroat trout, resultant from the competition between the same prey. This has had a chain reaction effect on the grizzly bears also preying on the deer and elk as well as the wolves and the hunters. Therefore the reduction of deer, resulting in the transformation of the national park is not entirely down to the reintroduction of wolves, and could be the result of the bears instinctiveness to adapt and change their food source in order to survive. This is an example of how complex nature can be and how easy it is for one to assume that one species is the result of such a big change in a landscape, and how one change, such as the introduction of lake trout and the return of the wolf can have such a drastic effect on our surrounding environment. It is essential when considering the economic, social and environmental problems that the wolf can have on a population, such as the farmers in the alps, that we maintain a balance and chose solutions which take into account the rights of nature. Furthermore that our solutions do not trigger a potential threat to our natural environment that humans so highly depend on.¹⁸

Concerns about wolves:

In 2012, 5,000 sheep were killed compared with 1,500 in 2007.¹⁹ This suggests that the population of the of the wolves are increasing and the conflict between wolves and humans in France is also becoming more prominent on both a social and economic level. There is a scheme put into place that provides compensation for farmers that have lost their livestock.²⁰ However we question whether the compensation truly covers their losses and the inconvenience that the farmers have had to deal with. There have been a number of cases where in the national park in France where the wolves were first sighted, such as arson and death threats in the local community.²¹

¹⁸ National Park Service, ' Grizzly bears and cutthroat trout' (June 1995)
(<http://www.nps.gov/yell/naturescience/beartrout.htm> accessed 6th August 2014

¹⁹ The Economist (The wolf returns, *Call of the wild*, Dec 22nd 2012)
<<http://www.economist.com/node/21568656/print>> read 07/08/14

²⁰ *Ibid*

²¹ *Ibid*

Even though wolves can be seen as an advantage by reducing the deer population, we already have schemes put into place that are an important part of rural life that also reduce the deer population. In order to protect the pine trees around a 100,000 deer/moose are shot every year; this is not only for protection, but the hunting is also used as a sport. Wolves prey on around 5,000 – 10,000 mouse/deer and year and have an impact on the not only the deer shooting but also the dogs that are used to hunt.²² This questions whether the wolves returning to the Alps will truly benefit the ecosystem, because their contribution to the ecosystem is already solved by hunters.

Many methods have been put into place to protect farmers livestock, such as electrical fencing and training guard dogs, however over time the wolves have adapted to the schemes and vary their attacks dependent on whether the most protection is put into place in the night or in the day.²³ Over time shepherds have begun to guard their sheep by night and lock them away, so the wolf attacks increased by 70% in the day when the sheep were amongst trees grazing or drinking at the rivers.²⁴ Wolves are very intelligent species and its is questionable whether it is worth the money and time to try and mitigate the effects the wolf have on farmer, when such a powerful creature at the top of its food chain will be able to find a way overcome the methods of protection. Poison is now documented as the most efficient way of killing wolves.²⁵ However we must consider the effects this can have on other species in the environment and the rights of nature, and whether this is taking away the rights of the wolf to live, and going against the protection of animals, promoting cruelty to animals.

Environmental groups claim that the numbers of wolf attacks are only a fraction of the total sheep mortality.²⁶ The majority of deaths are down to wild dogs, avalanches and storms. This poses the question whether it is a misconception and ignorance of the farmers and local people towards the negativity of the species of wolf and whether they putting the blame of more mortality of the sheep on the wolves to claim more compensation. Or whether environmental groups are refusing to accept the consequences that the wolves are having on the farmer's livelihoods, and are biased towards the protection of the wolf.

Existing Laws:

International Law

On the ratification of the Berne Convention 1979 on the Conservation of European Wildlife and Natural Habitats in 1990, France committed to implement national policies with regards to the conservation of flora, fauna and natural

²² The Economist (The wolf returns, *Call of the wild*, Dec 22nd 2012)
<<http://www.economist.com/node/21568656/print>> read 07/08/14

²³ Wolves in the French Alps (Lessons in acceptance, Troy Bennett) read 07/08/14

²⁴ *Ibid*

²⁵ *Ibid*

²⁶ The Independent (French farmers lose the battle to keep wolves fro, their door, 06/08/10)
<<http://www.independent.co.uk/environment/nature/french-farmers-lose-the-battle-to-keep-wolves-from-their-door-2044821.html>> accessed 07/08/14

habitats.²⁷ France is obliged to protect migratory species and to exchange information, experience and expertise with other signatories to the convention.²⁸ Arising from this convention is the protection of wolves within internal laws when they arrived over the Alps into French territory.

Wolves are protected under the Convention on International Trade in Endangered Species -1973(CITES) where they appear in appendix II.²⁹ The killing, transport and trade of any individual wolf, dead or alive is strongly regulated.³⁰ Subsequently France has an international obligation to recognise and regulate the wolf.

European Union Law

The Habitats Directive 1992 lists the wolves as a “priority species of Community Interest” that must be protected.³¹ However, if there is no satisfactory alternative and it does not affect the maintenance of the populations of the species concerned at a favourable conservation status in their natural range, France is allowed to derogate in order to prevent serious damage to crops livestock, forest and fisheries.³² This allows France in certain circumstances to reduce the numbers of wolves in places where damage occurs. Furthermore, in 2007 the interpretative guide allows the killing of wolves on a precautionary basis without waiting for damage to occur in cases where they are likely to happen.³³

French Law

French Law takes up commitments and performance obligation from the EU directives and International Conventions. Although there are no specific mentions of the wolf, Articles L411-1³⁴ and 411-2³⁵ of the Environmental Code set out measures for protection for animal species (including wolves) as well as dispensatory dispositions. Articles R411-1 -14³⁶ of the Environmental Code specify 2 legislative acts. Firstly it enacts the ministerial order of April 23rd 2007 setting up the list of

²⁷ Council of Europe, Convention on the Conservation of European Wildlife and Natural Habitats 1284 U.N.T.S. 209; Eur. T.S. No. 104 (1982); 1982 Gr. Brit. T.S. No. 56 (Cmd. 8738)

²⁸ Wolf in France, “An international protection” (Loupdevelopment.fr)

<http://www.loup.developpement-durable.gouv.fr/spip.php?rubrique123> accessed: 08/08/14

²⁹ Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27 U.S.T. 1087, T.I.A.S. No. 8249, 993 U.N.T.S. 243 Appendix II

³⁰ *Ibid.*

³¹ Council Directive on the conservation of natural habitats and of wild fauna and flora 92/43/EEC

³² *Ibid.* Article 16

³³ European Commission, “Interpretation Manual on EU Habitats”

http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/2007_07_im.pdf accessed 08/08/14

³⁴ LegiFrance, Service Public de la Diffusion du Droit (Legifrance) Environmental Code 411-1

<http://www.legifrance.gouv.fr/affichCodeArticle.do?idArticle=LEGIARTI000006833715&cidTexte=LEGITEXT000006074220>

³⁵ *Ibid.* 411-2

³⁶ <http://www.legifrance.gouv.fr/affichCodeArticle.do?idArticle=LEGIARTI000006837726&cidTexte=LEGITEXT000006074220>

protected mammal species on the national territory.³⁷ The wolf has belonged to this list since 1996. Secondly it enacts another order setting the list of protected mammals on the whole territory and the terms of their protection.³⁸

In 2009 for the purpose of the management of wolves and the protection of the herds, they were removed from the list of protected vertebrate species threatened with extinction in France.³⁹ It was removed for 2 reasons. Firstly its distribution increased by 25% since 2007.⁴⁰ Secondly the population had increased to at least 180 individuals by the end of 2009.⁴¹ This repeals the order of April 23rd 2007. The second order applying to the whole territory still strictly protects the wolves. This allows a larger local autonomy to defend domestic herds. Where there is no other solution to prevent damages.

This order allows a larger local autonomy to defend the domestic herds. It allows the commune to prevent important damages on livestock's, when there is no other solution. This must be done without endangering the conservation status of the species. The Law in France gives adequate protection for the interests of the wolves. It give protections that are only to be derogated in very narrow circumstances. Clear acknowledgment of the wolves is needed and studies must be conducted to show the benefit of the wolves to the ecosystem in a European/French context. This is essential in order to make future derogations to Berne and Habitats directive.

Rights of Nature

Introduction to the rights of nature:

Over time there has been a shift in human development from a hunter gather approach to an industrial one where we rely more on machines than nature. As a result we depend heavily on the environment, and consequently the current demand for resources is higher than what the environment can afford to supply, in order for a country to develop. For example Howarth notes that it has been estimated that each person in the UK consumes 4,643 litres of water each day 3,000 litres of which have been imported from other countries through food.⁴² This is an example of how unsustainable our current way of life is and how we would not function without globalisation. Furthermore the UN have noted that,

There are 7 billion people to feed on the planet today and another 2 billion

³⁷ Wolf in France, "An international protection" (Loupdevelopment.fr)

<http://www.loup.developpement-durable.gouv.fr/spip.php?rubrique123> accessed: 08/08/14

³⁸ Wolf in France, "An international protection" (Loupdevelopment.fr)

<http://www.loup.developpement-durable.gouv.fr/spip.php?rubrique123> accessed: 08/08/14

³⁹ European Commission, "Status, management and distribution of large carnivores bear, lynx, wolf & wolverine" (Commission, 2012)

http://ec.europa.eu/environment/nature/conservation/species/carnivores/pdf/task_1_part2_species_country_reports.pdf accessed 08/08/2014

⁴⁰ *Ibid.*

⁴¹ *Ibid.*

⁴² The Scotsman, 'World Water Crisis Warning to UK' (18 April 2010).

<<http://www.scotsman.com/news/uk/world-water-crisis-warning-to-uk-1-800302>> accessed 14th April 2013

*are expected to be borne by 2050. On average we drink 2 to 4 litres of water every day, however most of the water that - we “drink” is embedded in the food. Producing 1 kilogram of beef consumes 15,000 litres of water while production of 1 kilogram of wheat “requires as much as” 1,500 litres.*⁴³

This can be attributed to the underlying concept behind capitalism, ‘a logic of ever-increasing consumption in a world characterized by material resource limitations’⁴⁴ which has emerged from this industrialised way of life.

Rights and their current justification

In law a ‘right’ is an interest that is legally protected in the sense that it can be enforced in a court of law. In fact a ‘right’ is routinely used by lawyers and judges to refer to at least four different legal concepts: rights, which give rise to a duty on the part of someone else, privileges, powers, and immunities.⁴⁵ The rights that currently exist are justified on the basis that ‘God, who hath given the world to men in common, hath also given them reason to make use of it to the best advantage of life and convenience. The earth and all that is therein is given to men for the support and comfort of their being.’⁴⁶

This is the justification that allows human dominion over nature and is what allows consumerism to continuously exploit the environment without caring about the damage that it causes in order to enrich but a few. In other words the surrounding environment and the nature within planet earth has become merely seen as an object which can be managed, taking away its true value and the way in which it deserves to be treated.

In contrast Thomas Berry believes that the justification for the rights of nature other than for humans lies in the fact that other species exist.⁴⁷ Thus he has proposed that the rights of nature should be the following since “every component of the Earth Community has three rights: the right to be, the right to habitat, and the right to fulfil its role in the ever-renewing processes of the Earth Community.”⁴⁸

The rights of nature is a legal scheme in which a balance is maintained in order for both humans and nature to have the rights to live, exist, and fulfil fundamental roles in the ecosystem. The value of nature is often underestimated because often people do not understand the true value in which nature holds other than for human uses.

⁴³ UN World Water Day, *This year on world water day*, 22nd March 2012, available at: www.unwater.org/worldwaterday/ accessed 25th March 2012.

⁴⁴ S Baker ‘Sustainable development as symbolic commitment: declaratory politics and the seductive appeal of ecological modernisation in the European Union’ (2007) 16/2 *Environmental Politics* 297 (313)

⁴⁵ C Cullinan *Wild Law, A manifesto for earth Justice*, (UK, Green books, 2nd ed., 2011) 96

⁴⁶ J. Locke *Two Treatises of Government*, Chapter V para 25

⁴⁷ C Cullinan *Wild Law, A manifesto for earth Justice*, (UK, Green books, 2nd ed., 2011) 96

⁴⁸ C Cullinan *Wild Law, A manifesto for earth Justice*, (UK, Green books, 2nd ed., 2011) 101.

Interestingly Ecuador adopted the Ecuador Constitution on September 2008. Nature or Pachamama - an Indian word, has been legally recognized as rights by the Ecuadorian people in it's new constitution. Ecuador is the first country to incorporate the rights of nature in it's constitution. Instead of treating nature as property under the law, the laws of nature to recognize that all forms of life has the right to exist, persist, maintain and regenerate its vital cycles. And we have the legal authority to enforce these rights on behalf of ecosystems.⁴⁹

What does the rights nature add to the protection of wolves?

In an interview that we conducted with Colin Robertson he also confirmed this view that ' we have a way of life, a culture which gives rights only to people but no rights to animals.'⁵⁰ What the rights of nature would propose is that we regulate our behaviour towards nature as a tree nor a wolf can come to court. This is not a new idea as Colin gave the example of an unborn child who cannot communicate in anyway but they still have rights even though they cant speak which is the same as a baby. The law provides that they will be protected by allowing someone to represent their rights in court. Therefore we can recognise that the plant is in a similar position and thus appoint someone to act on their behalf to act and speak for them. This is how the rights of nature could help wolves. By recognising and respecting how we behave towards nature will shape our treatment of it. This will then cause many conservation efforts to help animals such as wolves which will then ultimately benefit humans as our ecosystem will be healthier and function more efficiently. Thus rights of nature paves the way for the rights of wolves as it pivots around living in balance with one another.

Mumta Ito believes that how the rights of nature can help with the re-introduction of wolves into Alps is through proposing a new way to solve these issues. For instance in the current system a species has to be near to extinction to be protected. Therefore most species have no protection as they are not near to being extinct. Furthermore there is no accurate method to calculate or operate the loss of habitat either. This results in year after year having crisis upon crisis concerning the individual extinction of animals . This causes a chaotic piecemeal inefficient approach. Instead the rights of nature could offer a new perspective to justify safeguarding nature for ultimately the benefit of the human race thus altering the way we treat it.

Mumta proposes that the method through which conflict can be resolved is through restorative justice where each party has a place to speak and can co-create solutions together instead of a top down approach it is an all the same level approach. This

⁴⁹ Rights of Mother Earth, 'Ecuador Rights of Mother nature'
<http://www.rightsofmotherearth.com/ecuador-rights-nature/#sthash.xIJrtVGs.dpuf> accessed 6th August 2014

⁵⁰ Anneke Emmery, Interview Colin Robertson, 5th August 2014

will involve social and economic issues too. This will be a place where you can introduce notions such as if you destroyed it you must restore it. She proposes that in reality this will result in farmers for example handing over some of their power and sovereignty over their land for the benefit of the wolves. This will require a paradigm shift in how they approach the situation. In other words they will have to have a new awareness about the importance of wolves role in the ecosystem and how they can ultimately benefit them even if it is not an immediate material benefit.

Traditionally in Europe there is a deep-rooted negative image of the wolf, based on the loss of livestock, and therefore livelihood and attacks on humans. What compounds this further is the loss of suitable habitat to development and agriculture, and reduction in numbers of prey species due to industrialisation. Thus this is quite naturally a very contentious area. In order to resolve this conflict between humans and wolves, stakeholders must be consulted as this has proven to be transformative in other more contentious areas.⁵¹ Farmers must be given the chance to raise their concerns and be heard, as well as to propose their own solutions. Potentially the Public Conversation model created in America to talk about abortion could be used here as it is designed to create space between people in order to have a constructive dialogue.⁵² Furthermore examples such as Catskills in New York should be looked at. Where agricultural activity in New York State was found to be polluting the water system, with estimated costs of \$80-90 billion to set up a water cleaning facility. Rather than investing in this infrastructure to treat the water, the Government tackled the source of the pollution by buying land in wetland areas, educating farmers and paying them to change their farming methods at a cost of \$1.5 billion.⁵³ It would be interesting to see comparisons between the current French system regarding wolves and the American one regarding water pollution. Unfortunately this report did not have the opportunity to investigate whether stakeholders are negatively affected by the wolves due to French local authority system failures and inefficiencies with regards to compensation for the loss of livestock which would further compound the effects of wolves. However whether the wolves are introduced or not this situation still needs to be addressed as stakeholders are suffering. Mumta also supports this as she notes that there must be protection in the law *prima facie* and secondly all stakeholders must be actively involved in co-relating solutions for the conflict that arises. Therefore the issues are solved at a community local level as they have the best placed knowledge. She further suggests that there should be environmental courts to facilitate this restorative justice as most environmental issues currently are heard in the planning courts which are only concerned with property and human ownership over nature.

However Valerie believes in the meantime, before the rights of nature is recognised in all legal systems, we must enforce the current regulation on the protection of wolves more they

⁵¹ Emily Stanton 'Fostering Dialogue Across Divides' Mediation Northern Ireland 2013

⁵² L Chasin , Maggie Herzig 'Fostering Dialogue Across Divides' A Nuts and Bolts Guide from the Public Conversations Project', (2006)

⁵³ Environmental Protection Agency, 'New York City Watershed' (2014)
<http://www.epa.gov/region2/water/nycshed/> accessed 20th February 2014

are part of the ecosystem and thus have a role in the environment.⁵⁴ She also supports Polly Higgins's quest to create a 5th crime against humanity that of ecocide which criminalizes environmental damage internationally⁵⁵ which is in contrast to Mumta's view for the future where conflict would be resolved through education rather than imprisoning or fining people.⁵⁶

Conclusion

The main conclusion of our report is that currently the research about the re-introduction of wolves into Yellowstone National Park was of a benefit to the ecosystem and thus this report would currently condone it. However stakeholders' positions must be consulted and be addressed as due to the inter-connectedness of the ecosystem what affects one also affects the other. For the protection under the law, there is a need to understand the ecological value of the wolves in a European context. Only then can it be understood if the killing of wolves is affecting the coherence of the habitats of France and the EU.

*'The 'allegiance the we humans owe earth, is therefore more analysis to that which the cell owes the body. The duty of the cell is to fulfil the functions of which it evolved and to continue acting in a matter that contributes to the health of a body. If it continues to do so it dies or becomes a cancer. Similarly our obligation to earth is to play our proper role in the functioning in the earth's system and to act in a way that maintains integrity or wholeness of earth. If we cease in doing so we portray the earth community which sustains us and ultimately our species.'*⁵⁷

⁵⁴ Felicien Trollé, Interview with Valerie Calbanes, 6th August 2014.

⁵⁵ P Higgins, *Eradicating Ecocide* (UK, Shephard-Walywn Publishers Ltd, 2010)

⁵⁶ Laura Blake, Annabel Sharma, Interview with Mumta Ito, 5th August 2014

⁵⁷ C Cullinan *Wild Law, A manifesto for earth Justice*, (UK, Green books, 2nd ed., 2011) 100