

Understanding The Wilderness: Canada Vs United Kingdom

Parin Somani

Independent Academic Scholar
E-mail: pusomani7@yahoo.co.uk

ABSTRACT:

This article seeks to understand the essential differences between Canada and the United Kingdom (UK) outlook approaches to the wilderness and how their development was informed by the worldwide view. Canada and the UK have shared a very special bond over the years, particularly in relation to the commonwealth. They possess similar visions to obtain freedom from ethical and cultural differences promoting diversity in their countries. However, their approaches to wilderness are yet to be understood. The concept of wilderness is difficult to define, but it can be referred to as a region that is uncultivated, inhospitable and inhabited. An area which is governed by nature with little human influence. This article provides the differences, similarities and worldwide view on the outlook approaches to wilderness through performing a systematic literature review. Results indicate that Canada and the UK differ in their: Interpretations and perceptions of the purpose of wilderness; concepts of a natural environment; geographical locations influencing wilderness perceptions. The development of outlook approaches to the wilderness in Canada and the UK's are shaped through a worldwide view relating to; history, culture and social aspects. This constitutes to a variation in cross-cultural perceptions relating to the wilderness within Canada and the UK.

Keywords:

Wilderness, Canada, UK, Wild areas, Perceptions

INTRODUCTION

The wilderness is a biological descriptor, a concept that is difficult to define (Nash, 1982). However, over the years attempts have been made to define it as a geographical region that is uncultivated, inhospitable and inhabited, an area that is neglected or abandoned (Tin & Summerson, 2013). Within a human concept it can be referred to as, an area within which nature governs the change in its own environment, without influence stemming from human activity. A lack of human habitation or interference within a natural habitat, at the most it entices human beings to act as spectators or visitors (Henderson, 1992). However, the wilderness can also be associated with aspects of natural human culture, based upon the theory of evolution. It assumes that human beings are born and evolved over generations living in trees, caves and open savannahs, thus born into the wilderness like other species (Martin, 2009).

Canada and the United Kingdom (UK) have shared a very special profound and positive traditional bond over the years, commercially, economically and particularly in relation to the commonwealth (Canada, 2020). Both countries share sovereign, follow the same governmental structure with a parliamentary system and similar visions to obtain freedom from ethical and cultural differences. Within many parts of the world there is great importance placed upon nature and

conservation within Canada (Benidickson, 2020) and the UK (Field, Buchanan, Hughes, Smith, & Bradbury, 2020). However, attitudes and approaches highlight differences in what they wish to achieve within the natural world. This will be investigated through the systematic literature review within this study.

Canada

Based on historical ideologies, Canadians believe that wilderness alters within time and space. It was only after the twentieth century that the concept of wilderness was explored and took the form of a fundamental idea (Nelson, 1989). Currently, it is believed that approximately seventy percent of the world's wilderness is located in only five countries around the world, within which Canada has the second largest wilderness area (Cox, 2018). Although Canada is deemed to be one of the largest countries globally, it spreads over multiple landforms. It fluctuates in temperatures within different regions as it has a wide range of different eco-patterns, with high and low points within its geography. The extensive wilderness particularly in northern Canada, is associated with the Canadian identity (Atkinson, 2003).

United Kingdom(UK)

Historically, the UK was perceived as pure wilderness, without any human settlement (Carver, Evans, & Fritz, Wilderness attribute mapping in the United, 2002). It used to be home to many wild creatures like the wolves

and lynx bears, which are currently linked to other countries with greater wilderness like North America (Watson D. , 1984). This shift in wild conditions occurred when human beings started to settle within the UK interfering with the natural wild habitants. Historically the UK was viewed as a land bridge between the European continent, thus attracted numerous settlers. As a result, over a period the UK has become very humanized and densely populated creating a varied concept of the wilderness.

Objectives

1. To understand the essential differences between Canadian and the United Kingdom's outlook approaches to the wilderness.
2. To understand how their developments were informed by the worldwide view.

Research Methodology

A systematic review was carried out, through a guided literature search by using electronic and manual sources. Information sources included databases, books, journals and magazines pertaining to the wilderness outlook and approaches in Canada and the UK. A well-planned process was implemented to identify primary studies to be used in the article. This included searching, extracting, and analysing, evaluating and interpreting relevant existing literary works. Descriptive research method has been used with the help of secondary data.

Questions

Five research questions were formulated within this systematic review to be addressed:

- Q1 What is wilderness?
- Q2 What is the Canadian outlook approach to the wilderness?
- Q3 What is the UK's outlook approach to the wilderness?
- Q4 What are the essential differences between Canada and the UK's outlook approaches to the wilderness?
- Q5 How was the development of these approaches informed by the worldwide view?

Literature Review

This systematic review included open ended studies addressing the outlook approaches to wilderness in Canada and the UK. The following electronic databases were searched for the purpose of this article: PubMed, Lexis Nexis, Blackwell Synergy, Science Direct, Web of Science, Google Scholar and Gateway. A preliminary sensitive search was administered through using the key words; Wilderness, Canada, United Kingdom, Britain, Approaches, Outlook, Wild areas. This resulted in numerous papers being collected, therefore it was important to identify papers that were useful to answer the specific research questions. The article inclusion criteria were set, to include published

studies and grey literature to understand the essential differences between Canada and the UK, their outlook approaches to the wilderness. The article exclusion criteria were followed before a final decision was made pertaining to the selection of primary studies utilized within this article. The points considered included:

- Papers irrelevant to the wilderness outlook approaches are omitted
- Papers that focus primarily on outlook approaches to the wilderness in countries other than Canada and the UK were disregarded
- Papers in languages other than English are excluded
- Papers that do not deliver enough technical information regarding their approach are ignored

The information found was not enough to establish differences in wilderness approaches between Canada and the UK and the development of approaches through a worldwide view, however papers obtained answered Q1-3. Q4 and Q5 were answered through literature and studies obtained from the various named electronic search engines particularly 'Google'.

Post-electronic search, a total of twelve papers were identified for investigation. Upon examining the papers three were duplicated and not used. After reading abstracts and introductions a further two papers were rejected leaving seven papers for investigation. Having read the full paper another two papers were removed due to a lack of implementation details. Therefore, five papers were identified and used as primary studies.

Other information sources searched

To obtain more information on the outlook approaches to the wilderness, Geographical Information Systems (GIS) and multi-criteria evaluation techniques were explored.

Results and Discussion

Result have identified that Canada and the UK share many similarities as countries, but they differ in their views on wilderness. The results below discuss the differences between Canada and the UK, their similarities and the worldwide view on the development of their outlook approaches to wilderness.

Differences

UK perceives the concept of wilderness as a means of intervening and shaping the natural environment through one's own assumptions. Many individuals residing in the UK assume that wilderness is only situated in remote geographical locations, away from overly populated areas. Ironically, within history a few hundred years ago the UK was a complete wilderness, without any human activity within it (Henderson, 1992). In contrast, Canada has had thousands of years of human habitation with major developments in industry,

agriculture and infrastructures within urbanized areas. However, results have found that Canada has kept its areas of wilderness intact in comparison to the UK.

Canada currently possesses vast areas of countryside compared to the UK, like the Canadian forest in northern Saskatchewan. However, from an ecological perspective some of the wild areas within Canada and the UK have been altered overtime due to human intervention. This was particularly to add aesthetic appeal, while other areas are completely man-made. According to the wilderness continuum concept, true pristine wildness is one extreme on the environmental modification spectrum (Hendee, Stankey, & Lucas, 1990), while on the other is urbanization. Thus, to identify, monitor and analyse wilderness using personal perspectives, we can assume a baseline referring to apparent naturalness. These include individual perception of the biophysical naturalness; remoteness from access; and remoteness from settlement (Miller, 1995) (Lesslie, 1994).

Results have illustrated that Canada has many environmental protection laws; this constitutes to the thriving wilderness within the country. There are many creatures living within the wilderness, like in the woods where creatures can prey, survive and reproduce. Such examples include black bears, grizzlies and within the North Pole polar bears. Approximately 9% of Canada consists of lakes, which is nearly tenth of the whole country with 50% of the world's natural lakes in Canada (Driedger, Durr, K, & Cappellen, 2015). Therefore, with pure water, good air quality and little human intervention, Canada has a great habitat for sea creatures to thrive in, promoting sea wilderness. The popular Canadian blue whales are examples of creatures living within these wild conditions. Manitoba is home to the Narcisse Wildlife Management Area consisting of the world's largest snake concentration with over 70,000 snakes hibernating during the wintertime. The tallest tree in Canada called the Cheewhat giant is approximately 184 feet tall. This has only been possible due to the natural habitat the tree resides in, with human beings only invited to spectate. In Athabasca provincial park in northwest Saskatchewan the wilderness is demonstrated through the Athabasca sand dunes, despite of their location in the northern regions. In contrast the UK has beaches in Pembrokeshire coast and mountain ranges to hiking on, in Carn Ingli, North Yorkshire. Ben Ledi and Ben Vorlich mountains in Scotland or mountainous peaks in the Peak District. The UK does not have as many wild areas as Canada, yet according to research people living within the UK do not show signs of suffering with wilderness deprivation. According to the American conservation foundation the reason for this could be because, the wilderness influences individuals in ways that are not

understood. If wild areas were to disappear this may cause future generations a detrimental loss, without their realization as they would not have had a chance to experience it.

The governing Canadian bodies have intercepted to direct Canadian outlook approaches through enforced laws. They aim to preserve wild areas which have had an impact upon protecting areas of the wilderness. One such law is to protect the woodlands, as any forestland must be regenerated if woodlands are cut down. The implementation of these regulations is as a result of the Canadian aboriginal communities, who used this method to protect their livelihood for generations. Although, this has resulted in the abolishment of wildlife habitat, it has never suffered deforestation. Another area in Canada protected, is the boreal forest which constitutes to approximately 1.5 billion acres of forestland lying between Canada itself and certain areas of Alaska. It is an important part of the natural ecosystem but also home to many species. Approximately 81% of Canada (Worldometers, Canada population forecast, 2020) and 83% of UK's overall population reside within the city (Worldometers, Population of the United Kingdom, 2020) Therefore, they view the wilderness as a remote area to take a break from urbanization and do not look for natural resources from wild areas to build their houses.

An incremental approach is necessary for the establishment of wilderness and protected areas. For example, Banff National Park in Alberta is perceived as an area of wilderness despite its manmade interventions to incorporate activities such as kayaking, hiking and facilities to camp and climb. This illustrates the inclusion of compatible human uses complementing the wilderness qualities without disturbances and complying with policies and laws. The greenery consisting of trees, grass and mountain ranges ensures that wildlife is not disturbed, whilst combining constructed roads enabling visitors to see its natural beauty. Such protected areas can be subject to challenges but governed through the approach taken by the Canadian government to protect the area. This can be compared to the Exmoor national park in southwest England on a smaller scale with moorlands, cliffs and waterfalls.

Canada is home to indigenous communities and has a duty of care towards all communities residing within the country. Nahanni national park reserve situated in northwest Canada towards the south-westerly corner. It is the third largest park in Canada and the home to Canada's First Nation community, Dencho. They worked together to integrate traditional Dencho cultural and social norms within the park to create a memorable

learning experience for those visiting. In contrast, the UK can be viewed as a country of settlers, invaders and migrants therefore do not have specific indigenous community that inhabit the wilderness.

Therefore, it can be argued that wilderness in its true sense does not exist in the UK but is subject to individual perception.

Similarities

Historically, Canada was not motivated to protect and develop places of wilderness like national parks. However, over time through understanding more about the wilderness they expanded the role of national parks to integrate the protection of their ecosystems, wildlife and vegetation. It is the perception of individuals residing within regions of each country that define the wilderness of an area. It is based upon features that they find important which in turn affect a resultant continuum. For example, individuals may feel that the location away from a populated region, places of high altitude, and difficult access, constitutes to a wilderness region. Another individual may feel that their perception of naturalness or biophysical naturalness constitutes to wilderness. Whistler in Vancouver is referred to as a wild place as it is at an area that is elevated 675m above sea level (Martin, Levette, Grocott, & Montgomery, 2010) and mount Logan which is 19,551ft the tallest peak in Canada. Similarly, the Scottish Highlands and mountains watching England and Wales. It may be important to integrate perpetual values of wild areas rather than focusing on the size to define wilderness.

Both the UK and Canada have their own standards relating to the wilderness that they abide by. When residing within urbanized areas despite place of residence, often individuals embark upon a journey in search for the wilderness. They aim to find peace and tranquillity, recreational activities or a form of eco-therapy. Particularly, within the UK the fluctuations in the agricultural economy and remote areas with natural landscapes, create an opportunity to recreate a wild environment. If this recreation is successful, it then entices many individuals from around the world to admire the wilderness despite natural or artificial wild areas. This is a novel concept within the UK, but in contrast it has worked well within Canada. One approach that could be taken to recreate the wilderness, is allowing an area that is no longer in use to grow back to its natural state creating an entirely natural landscape. Alternatively, the possibility of recreating the wilderness through man-made interventions by facilitating the natural look within the landscape. This may include transforming the area into a national park which is very popular in many parts of the world, alternatively creating areas for low intensity grazing. This idea of re-creation can also produce a positive or

negative impact upon biodiversity and ecosystems. However, the concept of wilderness can be approached through a humanistic or ecological perspective. The wilderness in Canada and the UK can largely be described as a landscape that is primarily natural without too much human interference. It relates to ecosystems, its processes and species, free from industrial infrastructure (Watson, Martin, & Lin, 2009).

Areas of wilderness can be categorized in Canada and the UK, using a wilderness continuum and adapted to understand wilderness outlook approaches. The first is how naturally, wild land is used. Wild land can be split up into urban land, tilled land or bog within the UK. However, the term naturalness can also be categorized; all natural, all unnatural, or semi-natural areas and can be managed intensively or not intensively. Individuals may observe that the more natural an area containing natural vegetation, greater is the perception of wilderness associated with that landscape. The second establishes if land is protected or unprotected within various parts of the country, environmental protection. These can include national nature reserves, national parks, or sites of special scientific interest. The third involves the perception of naturalness when in fact it is artificial. This is because it is influenced by human intervention or artefacts within the area. This can include buildings, roads, transport like railway lines, industrialization like power plants, or even the presence of human beings within the area. This approach is important because individuals feel that the further away, they are from human intervention within an area, the stronger the link to the perception of wilderness. The fourth pertains to high altitudes. A certain height above sea level is considered an area of wilderness, in comparison to areas of lower altitudes. However, there are many coastlines that can be perceived as areas of wilderness that are not at a higher altitude. The fifth relates to remote locations. It is away from dense populations and access to manmade interventions or residential areas. Results have shown that the further away individuals are from populated areas e.g., 25km, (this is an estimated average distance that a fit healthy individual may cover in one day) then the greater the feeling of an area of wilderness. The sixth determines road and transport access. This can be illustrated through the size of the roads leading to perceived wild locations. Smaller roads are associated with leading to areas of wilderness, accommodating less traffic which means a smaller population. In comparison, motorways and A-roads are perceived as busier because they accommodate more cars. This implies that the roads lead to areas comprising of larger populations. Similarly, public transportation, accessibility to roads and railway stations. Wild areas are generally perceived to have a link with infrequent railway services and spaced out railway stations, while for other modes of

motor transportation, roads are very narrow. Therefore, encountering difficulties in travelling on these smaller roads to a location can be perceived as travelling to a wild location. This also links into the time factor. The longer it takes to reach a remote destination, the wilder we feel an area is, despite residing in Canada or in the UK.

Human interaction in the wilderness is not a new concept, but an important aspect illustrating a perspective of human relationship with nature. Therefore, they are not only wild or biologically undisturbed areas, but can constitute to part of human identity. This can be illustrated through indigenous people who may reside in areas of the wilderness and therefore do not associate it as indifferent from themselves. This wilderness has become an integral part of their existence culturally and personally despite land or sea (Drenthen & Keulartz, 2014). However, this can also stimulate a cultural divide between westernized and natural cultures due to connotations attached with the term wilderness. Originally, the term was previously associated with no human habitats, including indigenous people. However, there is a need to consider the integration of indigenous people and their outlook on the wilderness. Therefore, it can be understood that wilderness invites an integral relationship with humans. In contrast the neo-green movement suggests that the wilderness is a concept that ceases to exist. The human impact of the world globally is extensive due to human interference creating pollution resulting in global warming and climate change. It also failed to acknowledge indigenous individuals residing in potential wild areas. Canada and the UK only allow access to wild areas or the implementation of recreational activities if the qualities associated with the wilderness are currently maintained without an impact on the future.

Worldwide View

Individuals residing in different parts of the world can quantify the wilderness pertaining to specific criteria. However, results have found that opinions regarding the wilderness vary over time and are dependent upon an individual's past experiences, their cultural and community values. There is a varied perception of wilderness dependent on an individual's outlook in life. Individuals residing in very busy urban areas who do not have the time to visit the wilderness, are more likely to perceive tamed civilized areas as the wilderness. They then view these areas as an exotic and wild area (Henderson, 1992). However, for those individuals that reside in rural areas, their perception of wilderness is different, as they are after a more remote location that is not as established.

It is possible to classify areas within a country as the most and least wild area, however individual perspective and approaches to wilderness classification is based upon an individual's interpretation of an environment. An individual's experience and values, stemming from a nature perspective focusing on conservation, regeneration and preservation. This can also include ideas relating to history, culture and social aspects of an individual shaping their personal views on wilderness. The worldwide view on wilderness creates an emphasis on the size of the wild area and the ecological integrity attached to it. However, there is little emphasis on the perceptual value. This is necessary for sustaining individual wilderness perception so that the legacy of wilderness can continue.

Analysing (GIS) the quality of wilderness can be established in a diagrammatic format through maps, illustrating naturalness and remoteness in Canada and the UK. In order to obtain more conclusive results, it is possible to amalgamate the multi-criteria evaluation so that wilderness continuum can be establish. By doing this, standard criteria can be devised around the world to establish the location of wild areas. However, ideals of the wilderness again vary between countries, which makes it very difficult to create a Global outlook approach to the wilderness. With globalization and flourishing diversity visible in many countries worldwide, this promotes individuals to bring with them their own outlook and approaches to the wilderness. Over a period, this can create change via influencing and developing a new community outlook on the wilderness. Results have illustrated that approximately only 46% (International, 2002) of the world land mass is wilderness according to a study carried out by conservation international. However, this figure has fluctuated down to 23% (Watson, et al., 2018) and up to 70% (Cox, 2018).

There are scared wild areas that are visited by communities following a religion, or even individuals in search of spirituality around the world. This stimulates locals and authorities of the presiding sacred wild areas to look after those locations more, as it can affect revenue and worldwide ecosystems. Therefore, it is important to cultivate regulations, promote culture, support and provision ensuring a suitable sustainable outlook approach to the wilderness. This also harbours other benefits associated with personal values of respect for historical and religious sites, a search for peace through solitude and participation of traditional worship. It can create unforgettable experiences that many individuals seek within the wilderness. Hence, many individuals go out of their comfort zones to travel to such wild destinations. Another outlook approach to the wilderness can be associated with research for educational purposes or to enhance scientific

knowledge. Usually this cannot take place outside a wild area.

The future of the wilderness can be perceived as being in jeopardy, due to the overpopulated worldwide inhabitants. As a result, they will need natural resources, which will be taken from wild regions affecting the overall wilderness (Dove, Sajise, & Doolittle, 2011). In time this will leave limited wild areas around the world, however technological advancements have enabled manageable approaches to protect the wilderness over time if warnings of caution and designated legislations are not ignored. Canada is one of forty-eight countries that has implemented legislations to protect areas, however in contrast the UK is one of twenty-three countries that have wilderness areas established through zones in protected areas or administrative designation.

It is suggested that individuals globally, are seeking to understand the importance of the wilderness and ecosystems. As a result, interest has been cultivated to protect the diverse wild regions across the earth. This illustrates that there is an evolving intrinsic natural value being adopted by people worldwide. It is only when individuals understand the consequences of their actions, that they devise strategies to protect and limit their actions. This has been illustrated through human realization of a loss in diverse cultural and language within wild areas amidst distractions. Then there are ongoing attempts to protect and preserve wild regions. The wilderness can help individuals around the world to develop and create experimental values like self-reliance, humility, freedom, solitude an opportunity to challenge oneself physically and mentally. Simultaneously it can be perceived to eliminate pressures of everyday life and promote spiritual awareness.

Conclusion

This study has deduced that Canada and the UK have many similarities as countries but differ in their: Interpretations and perceptions of the purpose of wilderness; concepts of a natural environment; geographical locations influencing wilderness perceptions. The development of outlook approaches to the wilderness in Canada and the UK's are shaped through a worldwide view relating to: History; culture, personal and social aspects. This results in a variation in cross-cultural perceptions relating to the wilderness. There is no proof to indicate that individuals globally do not value wilderness, if they feel indifferent, or do not acknowledge the wilderness. However, it can be assumed that there is a need for wilderness and civilization. The individual perception of wilderness varies considerably between countries around the world. It is usually driven by their own values systems

that are linked to either cultural, spiritual, ecological, recreational or legacy values and the acclaimed wilderness area's aesthetic appeal, this supports previous theories and is relatable to previous research.

Canada possesses many places of wilderness, more so than the UK; however, it is variant upon the perception of the term wilderness. The UK is largely populated and possesses predominantly large areas of civilization, in comparison to Canada which has a larger area to cultivate the wilderness. In turn this can constitute to the overall perception of wilderness. Further confusion can arise within individual perceptions when there is a comparison of ecologically wild areas or artificial remote, extreme or dramatic areas that constitute to the overall outlook approaches to the wilderness and a global perspective.

This study has recognized the need for standardized criteria around the world to aid the identification of true areas of wilderness. This is because the perception of wilderness is subject to individual interpretation stemming from their personal viewpoints and perspectives. Currently, it is very difficult to identify areas globally where human intervention and disturbances are at a minimum. Therefore, inclusion and expansion are important concepts when developing the wilderness. This can be achieved through building mutual trust, understanding and then redefining processes that are advantageous to the wild area. This is our world; thus, we need to take responsibility and value the wilderness. We must view our world and the wilderness as a community that we belong to, not just a commodity that we own. We should treat our wilderness with love, respect and be committed to its welfare. By looking after our world and the wilderness that resides therein, despite the country Canada or the UK, it has been proven to provide for its inhabitants worldwide. Thus, when creating change in wild areas mankind must remain mindful of the unspoken connection it has with the world and only aim to create positive change.

References

1. Atkinson, K. (2003). Wilderness and the Canadian Mind. *British Journal of Canadian Studies*, 228-42.
2. Benidickson, J. (2020). *Environmental law in Canada*. The Netherlands: Kluwer Law International, BV.
3. Canada, G. o. (2020, 06 03). *Canada and the United Kingdom*. Retrieved from [UnitedKingdom.gc.ca: https://www.canadainternational.gc.ca/united_kingdom-royaume_uni/bilateral_relations_bilaterales/index.aspx?lang=eng](https://www.canadainternational.gc.ca/united_kingdom-royaume_uni/bilateral_relations_bilaterales/index.aspx?lang=eng)
4. Carver, S., Evans, A. J., & Fritz, S. (2002). Wilderness attribute mapping in the United. *International Journal of Wilderness*, 24-29.

5. Carver, S., Evans, A., & Fritz, S. (2002). Wilderness attribute mapping in the United Kingdom. *International Journal of Wilderness*, 8.
6. Cox, C. (2018, 10 31). Five countries hold 70% of world's last wildernesses. Retrieved from Guardian: <https://www.theguardian.com/environment/2018/oct/31/five-countries-hold-70-of-worlds-last-wildernesses-map-reveals>
7. Dove, M. R., Sajise, P. E., & Doolittle, A. A. (2011). *Beyond the Sacred Forest: Complicating Conservation in Southeast Asia New Ecologies for the Twenty-first Century*. Durham: Duke University Press.
8. Drenthen, M., & Keulartz, J. (2014). *Old World and New world Perspectives in Environmental Philosophy*. London: Springer.
9. Driedger, A. G., Durr, H. H., K, M., & Cappellen, P. V. (2015). Plastic debris in the Laurentian Great Lakes: A review. *Journal of Great Lakes Research*, 9-19.
10. Field, R. H., Buchanan, G. M., Hughes, A., Smith, P., & Bradbury, R. B. (2020). The value of habitats of conservation importance to climate change mitigation in the UK. *Science Direct*, Vol 248.
11. Hendee, J. C., Stankey, G. H., & Lucas, R. C. (1990). *Wilderness Management*. Colorado: Fulcrum Publishing.
12. Henderson, N. (1992). Wilderness and the Nature Conservation Ideal: Britain, Canada, and the United States Contrasted . *Ambio*, 394-399.
13. International, C. (2002). *Global Analysis Finds Nearly Half The Earth Is Still Wilderness*. Conservation International.
14. Lesslie, R. (1994). *The Australian National Wilderness Inventory: wildland survey and assessment in Australia*. *Wilderness: The Spirit Lives*. Proceedings of the 6th National Wilderness Conference. New Mexico: Charisse Sydoriak.
15. Martin, D. S., Levette, D. Z., Grocott, M. P., & Montgomery, H. E. (2010). Variation in human performance in the hypoxic mountain environment. *Physiological society*.
16. Martin, V., & Watson, A. (2009). 'International Wilderness'. In *Wilderness Management: Stewardship and Protection of Resources and Values*. Colorado: Fulcrum .
17. Miller, J. (1995). Australian approaches to wilderness. *International Journal of Wilderness*, 38-40.
18. Nash, R. (1982). *Wilderness and the American*. New Haven: Conn: Yale University Press.
19. Nelson, J. G. (1989). Wilderness in Canada: Past, Present, Future. *National Resources Journal*, 84-102.
20. Tin, T., & Summerson, R. (2013). Growing Human Footprint, Diminishing Wilderness in Antarctica. *International Journal of Wilderness* , 10-13.
21. Watson, A., Martin, V., & Lin, C. C. (2009). Wilderness: An International Community Knocking on Asia's Door. *Journal of National Park*, 19(4); 1-9.
22. Watson, D. (1984). . A brief history of the origins of the Scottish wildlands. In V. G. Martin and M. Inglis, eds., *Wilderness: The Way Ahead*. Proceedings of the 3rd World Wilderness Congress. Colo: Wild Foundation.
23. Watson, J. E., Venter, O., Lee, J., Jones, K. R., Robinson, J. G., Possingham, H. P., & Allan, J. R. (2018). Protect the last of the wild. *Nature*, 563.
24. Worldometers. (2020, 07 17). Canada population forecast. Retrieved from Worldometers.info: <https://www.worldometers.info/world-population/canada-population/>
25. Worldometers. (2020, 07 17). Population of the United Kingdom. Retrieved from Worldometers: <https://www.worldometers.info/world-population/canada-population/>