

BCS 100: Introduction to the Circumpolar North

University of the Arctic

MODULE 1: Introduction to the Circumpolar North

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Overview

The module begins by explaining the myth of the Circumpolar North as a distant, harsh and exotic place, devoid of community. The module then defines some of the terms used to refer to the world's northernmost places including: the Arctic and Subarctic, the Boreal Region, the North, and, finally the Circumpolar North. The module goes on to explain why it is important to study the Circumpolar North as one large region and how countries cooperate; the difference between traditional, indigenous, and western knowledge; and what interdisciplinary study is and why it is so important. The module concludes with a discussion of diversity and comparative analysis.

Learning Objectives

Upon completion of this module you should be able to:

1. Explain the differences among the terms arctic, subarctic, north, and circumpolar.
2. Articulate why it is useful to study the Circumpolar North as a single, large region.
3. Compare traditional knowledge and indigenous knowledge to western-based knowledge.
4. Specify the differences between disciplinary and interdisciplinary study.
5. Illustrate examples of diversity.
6. Describe the process of comparative analysis (analytical framework).
7. Explain the importance of collaboration and cooperation in the north.

Required Readings

Study this module.

Key Terms and Concepts

- Arctic
- Boreal
- Circumpolar
- Coniferous
- Deciduous
- Indigenous

- Indigenous knowledge
- Interdisciplinary
- Nordicity
- Subarctic
- Traditional Knowledge

Learning Material

1.1 Arctic, North, or Circumpolar: What's in a Name?

The cold wind blows snow across the Arctic tundra. The land is barren; there are no people, plants, or animals to be seen. This far-off part of the world is inhospitable to any form of life.¹

This is a picture commonly conjured in people's minds when thinking about the north – someplace far away, cold, bare, and rather unwelcoming, but one that does not ring true for those who live in the north.



Figure 1: Iqaluit, Nunavut in February

Photo by Hayley Hessel, University of Saskatchewan, Canada

We who reside in the more northern reaches of the planet prefer to think of the north as home. It's where we live. We work there. We buy our groceries there. We go to school there. We like to take our holidays there. It is not exotic, nor distant. It's what we see when we look out our windows. It is the intention of this course to bring this reality of the Circumpolar North, as a homeland, to you.

This course is called "An Introduction to the Circumpolar North," not "An Introduction to the Arctic" or "An Introduction to the North." Why? Let's deal first with the word

¹ Karla Hardcastle 2008.

“arctic.” The word arctic usually refers to things – the plants and animals, the peoples and places – that lie north of the Arctic Circle, which is located at latitude 66°33’39” north of the equator (this is the orange line in Figure 1). Sometimes it is used to refer to areas or things that reside north of the latitude beyond which trees do not grow.

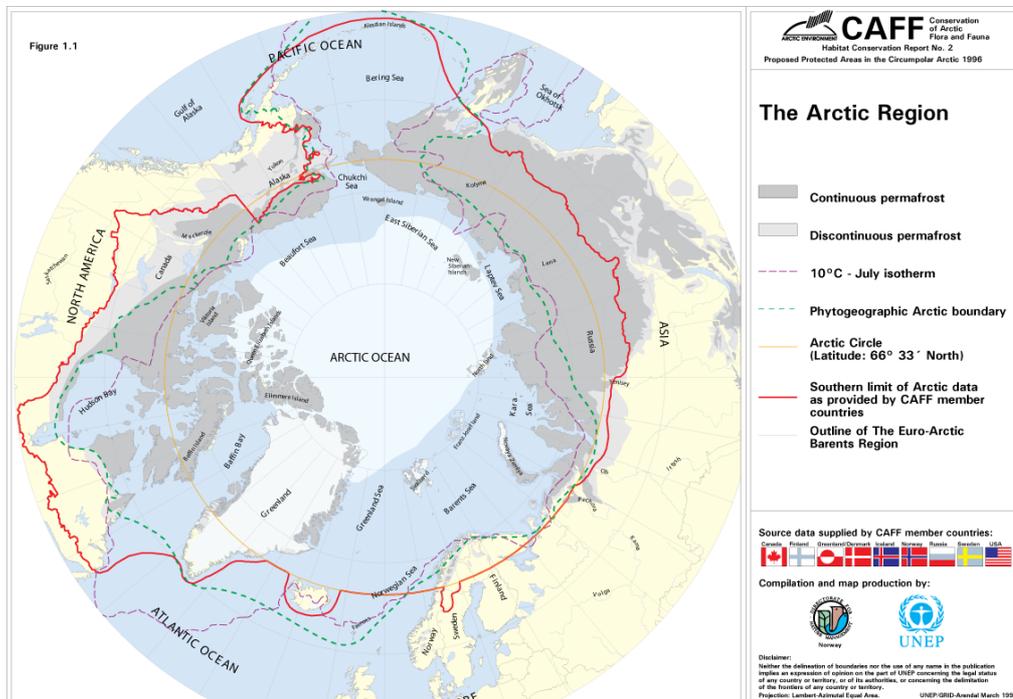


Figure 2: The Arctic Region.

Source: UNEP/GRID-Arendal, CAFF, *Habitat Conservation Report No. 2, Proposed Protected Areas in the Circumpolar Arctic*, 1996. http://maps.grida.no/go/graphic/the_arctic_region1 Posted with permission.

Usually, “arctic” excludes the region immediately south of the Arctic Circle or, in some cases, immediately south of the tree line; an area that is often referred to by geographers and other scientists as the “low arctic” or “subarctic.” Much of this second region is largely composed of what scientists call the boreal forest. The word “boreal” comes from Boreas, the name of the Greek god of the North Wind. To use the word “boreal” – as in Aurora Borealis (northern lights), or Boreal Owl, or boreal forest – is simply to say “northern”. Importantly, the boreal or northern forest is the world’s single largest ecosystem, a thick band of mixed **coniferous** and **deciduous** forests that stretch more or less continuously across northern North America, northern Europe and northern Asia.

These two regions – the **Arctic** and the **Subarctic** or **Boreal** – are contiguous: that is they share a common boundary. But the boundary between them is not constant. It has shifted many times. For example, find Axel Heiberg Island on a map (See <http://atlas.nrcan.gc.ca> and search for “Axel Heiberg Island”). It is located in what’s called the Canadian Arctic Archipelago, the patchwork of islands north of mainland Canada and west of Greenland. It is located north of the Arctic Circle and does not have trees. However, scientists continue to study the petrified remains of the great forests that once grew on the island. Clearly, this part of the arctic was once much warmer than it is today and the northern forest stretched much farther north than it does today.

Many scientists and others who live close to the land firmly believe that the climate is once again undergoing significant change. The north, or at least sizable parts of it, is warming up. Thus, permafrost, long used as one of the traditional indicators of northerness or “**nordicity**”, is beginning to retreat northward. If this warming trend continues, the boreal forest may once again expand northward.

Thus, it makes sense to study these two contiguous regions together, as a single large region. And, since the word “arctic” more properly refers to just one of the two major geographic zones, a more encompassing word is needed, one that embraces both the arctic and subarctic.

At first glimpse, the word “north” seems to do this. It appears to have the advantage, at least in much common usage in northern Europe and North America, to include the Arctic and Subarctic regions. However, as it is a directional term, it has the disadvantage of being the most relative or subjective of the words available to us. If you’re a Muscovite, St. Petersburg is north. If you’re from Copenhagen, Stockholm is north. If you’re from Toronto, Sudbury is north. And if you’re from Cape Town or Melbourne, to you, almost everywhere is north.

Just how problematic the relativity of “north” is can be demonstrated easily. Simply go to a computer and, using a strong search engine, search the word “north.” One such search produced a list of over 1.1 billion items

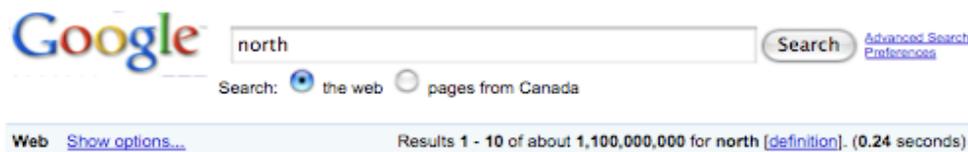


Figure 3: Google search for the word «north».

Interestingly, very few of the first hundred use the word “northern” in the sense that we want to use it here. Ironically, the word “north” is not specific enough to be able to gather information about the region as we understand it! We can see that, while the word “arctic” is too precise, the word “north” is too imprecise.

Now search for the word “circumpolar” using your computer. Suddenly we are presented with numerous sites that clearly correspond to the places and peoples of the “Circumpolar Region”. But even “circumpolar” creates problems. “Circumpolar” literally means “around the pole.” Therefore, “circumpolar” applies, as some geographers like to point out, as much to the region around the South Pole as it does to the region around the North Pole. However, there is a growing common practice to use the term “circumpolar” to refer only to the North Circumpolar Region. This may offend one or two scientific sensibilities but we can be quite confident that it will not offend long-term inhabitants of the South Circumpolar Region. One of the principal differences between the two circumpolar regions is, in fact, that while there is a long record of human use and occupation of the northern Circumpolar Region there is no evidence of traditional habitation in the southern Circumpolar Region, with the possible exception of the South Georgia Islands.

Thus, in this class we will study the area traditionally covered by the terms arctic and subarctic as the Circumpolar North, which is approximately from the 55th parallel northward. These are the northern lands of the world’s eight northernmost countries (the Arctic Eight): Russian Federation, Finland, Sweden, Norway, Iceland, Denmark (Greenland and Faroe Islands), Canada, and the United States of America.

1.2 Studying the Circumpolar North as a Whole

As both the previous sections and the North Circumpolar Region map suggest, it is useful to think of the Circumpolar North as a whole. Let's take a closer look. As we've already discussed, even though the area represented on your map is very large, it includes just two main geographic zones: the Subarctic and the Arctic. Much of what goes on in these two regions has to do with the presence of ice and snow.

Consider the following: the original peoples of the arctic—those people who are **indigenous** to the region—are widely dispersed around the Circumpolar North. The Inuit Circumpolar Conference (ICC), for example, is an international organization that represents, as its name suggests, the Inuit peoples of the world. To ensure the adequate representation of all its members the ICC maintains sections in Russia, Alaska, northern Canada, and Greenland. Similarly, the Sami people are widely distributed throughout northern Norway, Sweden, Finland, and northwestern Russia.

Also, many of the big issues or problems northerners now face—such as climate change and the appearance and persistence of toxic levels of pollutants from southern, industrialized regions of the world—are circumpolar. These issues appear all over the region and many of the residents in different parts of the Circumpolar North are at risk of being harmfully influenced by their effects.

Consider as well the possibility that a woman living in a remote part of Alaska might have more in common in terms of living conditions, recreational activities, childrearing, or diet with a mother in the province of Finnmark in northern Norway than she would with a woman living in rural Alabama, USA. For these reasons, it makes sense to think of the Circumpolar North as a whole and to study it as such.

It is also important for southerners to understand the Circumpolar North as a cohesive region. In these days of globalization and increased geopolitical relations, the entire world is being brought together more often and issues affecting one area influence others. This is exemplified by forums such as the Group of Eight or G8, an economic and political forum for eight of the richest countries in the world to which three arctic nations (Russia, United States of America, and Canada) and five other nations (France, Germany, Italy, Japan, and the United Kingdom) belong (Government of Canada 2009). Another example is the Organization for Economic Co-operation and Development (OECD) composed of 30 nations including seven of the eight arctic nations: Canada, Denmark, Finland, Iceland, Norway, Sweden, United States (OECD, About OECD: Our Members).

“The OECD brings together the governments of countries committed to democracy and the market economy from around the world to: support sustainable economic growth; boost employment; raise living standards; maintain financial stability; assist other countries' economic development; and contribute to growth in world trade.” (OECD, www.oecd.org).

Arctic Council is another example of how the nations and their residents have formalized cooperation in the Circumpolar North. The Arctic Council was created in 1996 as a “high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic” (Arctic Council, 2007). The activities of Arctic Council, the ICC, University of the Arctic, and other circumpolar organizations allow

for a greater feeling of a shared identity among residents of the Arctic 8 and provide opportunities for northerners to come together and work towards shared goals.

It is forums and organizations like these that necessitate a better understanding of the Circumpolar North as a whole and that will lead to and increased need for cooperation among the Arctic 8 in the future.

1.3 Traditional, Indigenous, and Western Knowledge

Throughout this course, traditional, Indigenous, and western scientific knowledge will be used to learn about the Circumpolar North. The University of the Arctic's values are centered on developing programs that are "in the North, for the North, by the North", and therefore strives to acknowledge the importance of traditional and Indigenous knowledge in conjunction with western scientific knowledge.

Traditional knowledge is defined as "the unified knowledge that originates from and is characteristic of a particular society and its culture" (Assembly of Alaska Native Educators, 2000: 27). Aggie Brockman explains, that it "is a body of knowledge built up by a group of people through generations of living in close contact with nature. Traditional Knowledge is cumulative and dynamic. It builds upon the historic experiences of a people and adapts to social, economic, environmental, spiritual and political change" (Brockman, 1997: 1).

Traditional environmental knowledge is used to make decisions about activities concerning the natural environment. Traditional knowledge "includes mental inventories of local biological resources, animal breeds, and local plant, crop and tree species...Traditional knowledge also encompasses belief systems that play a fundamental role in a people's livelihood, maintaining their health, and protecting and replenishing the environment" (Hansen and VanFleet, 2003: 3).

One specific type of traditional knowledge is **indigenous knowledge**. Whereas both traditional and indigenous knowledge accrue over time, Indigenous knowledge pertains to the subset of traditional knowledge rooted in indigenous values and the shared belief that each indigenous regime results from a group of people adapting to a unique ecological order (Battiste and Henderson, 2000: 9). Moreover, there is an accompanying belief that "all aspects of the universe are interrelated" and that indigenous knowledge is "holistic, relational and spiritual" (Semali and Kincheloe, 1999: 43). It is also held that indigenous knowledge originates from "multiple sources, including traditional teachings, empirical observations, and revelation" (Brant Castellano, 2000: 23). It is because of all these factors that indigenous worldviews are distinct from other worldviews and why they are an important aspect of this course.

Learning Activity 1: Traditional Knowledge

Drawing upon your personal life experiences, describe two examples of traditional knowledge or Indigenous knowledge in your community. If you have difficulty with this activity, consider the political, social and legal contexts of your everyday life and see if you can find a practice that can be characterized as traditional knowledge. If you are still having difficulty, undertake some research: Talk to someone that you think is aware of Indigenous or traditional knowledge practices or do some research on the Internet. Note: you could discuss the two examples you find with other students in your class in your online discussion forum.

The Alaska Native Science Commission (n.d.) has assessed the difference between traditional knowledge and western/scientific knowledge on a point-by-point basis. Traditional knowledge is viewed as both sacred and secular, is most often based on oral and visual teachings and is considered intuitive and holistic. Scientific knowledge by comparison is secular only, it is typically written and is model or hypothesis-based and reductionist. In practice, traditional knowledge usually requires a long time to gather and focuses on long-term wisdom whereas scientific knowledge has a more rapid or lengthy acquisition period and focuses on shorter-term prediction. The fundamental difference between western scientific knowledge and traditional or knowledge is that the latter is based on beliefs and values. Values and beliefs are subjective and “normative”, and therefore cannot be refuted. Western science is based on a tradition of repeated testing that takes a positive and objective rather than a normative approach.

Both styles of knowledge and types of knowledge acquisition have advantages and disadvantages and lead to different types of knowledge. In the case of traditional knowledge, information is generated over many generations whereby phenomena are observed. This approach provides useful information in determining trends and long-range changes at the local level. Conversely, western science is based on both repeated experimentation in which results can be generated relatively quickly and longitudinal studies that have long-term utility. Furthermore, experimentation can take place at many different locations providing good global comparisons in some cases. . For a full explanation of the differences between traditional and scientific knowledge visit the Native Science Organization on the Internet.

1.4 Interdisciplinary Study

The authors who wrote the modules in this course not only represent many different nations and cultures within the Circumpolar North, but also different disciplines or fields of scholarly study. It’s not just a “circumpolar” group; it’s also an “interdisciplinary” group. “Interdisciplinary” is a word you will see frequently in your course materials and it deserves some attention.

As you probably know, western academia is divided into a diverse number of disciplines, usually on the basis of the subject of study. For example, this could include geology, economics, physics, and mathematics. These disciplines are focused on a particular subject area and academics within the field are considered “specialists” or “experts” of their chosen topic of study. For instance, a political scientist might be an expert on Russian federalism or a marine biologist might specialize in the study of narwhales off the coast of Greenland.

To many westerners, specialization feels natural: as one learns increasingly more about a topic, one is naturally led deeper into it and continues to gain more detailed knowledge. As strong as the impulse towards specialization is, the authors of this course recognize the importance of examining subjects from a wide variety of perspectives to seek out relationships with other subjects, and to understand issues in different contexts. Today, one often hears about the need to take an “integrative approach,” to look at an issue or phenomenon as broadly and inclusively as possible. Similarly, one sometimes hears about the need to take an “interdisciplinary approach”, which is to scrutinize a problem or phenomenon from a variety of different perspectives or disciplines.

The boreal forest, for example, can be studied using many different disciplines: biologists examine plant and animals; chemists study the effects of retardants on

wildfires; and economists study the role forestry plays in the economy and to social well being. Each discipline uses a specific set of rules, theories and methods to study parts of the boreal forest. An interdisciplinary approach requires understanding of a combination of disciplines to evaluate an issue at a broader scale. An example of this might be setting timber harvesting policy. To understand how much to harvest, policy makers would need to understand what the forest was capable of growing (biology); how the forest system worked together in an entire watershed (ecology); and the socio-economic needs of the community (economics and sociology).

This course will utilize an interdisciplinary approach to look at the Circumpolar North. It is well suited to do so because so many problems or issues people in the region face are complex. Take, for example, the current discussions about what are often referred to as “country foods”: foods that are traditionally hunted or gathered by long-term inhabitants. More governments (national, regional and Aboriginal) in the Circumpolar North increasingly want to ensure the long-term survival and integrity of traditional food sources. Consequently, they want to implement policy and practices that will ensure this. Clearly, the policymakers need to know the significance of country foods to traditional circumpolar cultures, which is the domain of anthropology. They also need to be able to assess the supply – the quality and quantity – of particular country foods, which is often the work of wildlife or fisheries biologists. Policy makers need to know what might be threatening the supply, whether it might be changes in weather – the business of climatologists – or the presence of air- or water-borne pollutants, the domain of biochemists and toxicologists. And, if a regional supply is being affected by a practice in another political jurisdiction – for example, a decline in international fish stocks – then the input of political scientists could very well be required.

In this course our principal interests are the lands, the peoples and the issues of the Circumpolar North. These must be seen together and understood as a whole. Thus, this course includes geography but it isn't a geography course. It includes biology, but it isn't a biology course. It includes history but it isn't a history course. Rather, it uses information from a wide variety of fields in an attempt to provide a coherent picture of a complex region, the people who live there, and the challenges they face.

1.5 Diversity and Comparative Analysis

Because the Circumpolar North is vast and varied in geographical and political scope, it is also rich in human diversity; many different indigenous peoples including the Inuit of Greenland and northern Canada, the Sámi of northern Norway, Sweden, Finland, and Russia, and the Native Americans of Alaska, for example, give rise to a vast and varied history. This also includes peoples who have lived in the North for centuries as well as recent settlers. Given all these differences in the Circumpolar North, diversity, which is simply a state of being different or varied, is an important part of this course. Just as we are cognizant of including traditional knowledge, we also seek to be inclusive of the various perspectives arising out of this region and to represent a variety of viewpoints on the topics we cover.

Learning Activity 2: Interdisciplinary Study

Which different disciplines of study would you use to assess a proposal for a gas pipeline development in your region of the Circumpolar North? (An answer is provided on the last page of the module.)



Figure 4: Arctic People Subdivided According to Language Families.

Source: Arctic Council http://arctic-council.org/section/maps_and_photos Posted with permission.

Because of the importance of representing and analyzing the diversity within the region, in addition to the similarities, the process of comparative analysis is an integral part of this course; in both our teaching and your work during the semester. So what is comparative analysis?

Simply put, comparative analysis is the process of comparing and contrasting two things (two places, two groups of people, the lives of women living in two different locations, two effects of climate change, etc). There are two types of comparative analysis. The first is a classic compare/contrast methodology. Using this method you weigh both subjects equally and examine how they are similar and different, or how they appear different, but upon investigation have similarities (Walk 1998, 1).

The second type of comparative analysis is a lens or keyhole comparison. As Walk (1998) at the Writing Center at Harvard University explains, “you weight A less heavily than B, you use A as a lens through which to view B. Just as looking through a pair of glasses changes the way you see an object, using A as a framework for understanding B changes the way you see B” (para. 2). This approach is particularly useful for our purposes in representing diversity in the Circumpolar North, as you will gain a better understanding of the differing perspectives in the region if you analyze a situation/subject from a viewpoint other than your own.

1.6 Conclusion

The fundamental premise of the Circumpolar Studies Program is that now, more than ever before, northerners need to know about the Circumpolar North. People across the North face similar problems and challenges. For example, globalization has made the Circumpolar North more accessible than ever thus opening up more of the North for exploration and resource extraction; there are increasing numbers of tourists visiting ever more remote locations; and there is renewed political pressure to claim resources and redefine property rights. Such problems are complex and sound solutions will be gained only with collaboration and resource sharing. For these reasons, people will benefit from knowing more about the other peoples with whom they share the region, and the issues they collectively face.

Study Questions

1. How would you distinguish issues that are “Arctic,” “North,” and/or “Circumpolar”?
2. Give three reasons why it is useful to study the Circumpolar North as a single, large region.
3. What are the key differences between traditional knowledge and western scientific knowledge?
4. Identify three major differences between disciplinary and interdisciplinary study.
5. Provide three examples of diversity in the Circumpolar North.
6. Describe the process of comparative analysis (analytical framework).
7. Explain why collaboration among the arctic nations is important to address emerging issues.

Glossary of Terms

Arctic: the region north of the Arctic Circle; of or related to areas or things that reside north of the meandering line beyond which trees do not grow.

Boreal: of or relating to the subarctic, or northern forested regions of the globe.

Circumpolar: surrounding the pole; refers to both North and South poles.

Coniferous: types of trees and shrubs that bear foliage throughout the year. These are mostly trees with needles and are usually evergreen (ex: pine, spruce, and firs).

Deciduous: types of trees that seasonally shed their leaves/foliage at the end of their growing period and then go into a dormant phase (ex: birch and poplar).

Indigenous: originating in a specific region; pertaining to the aboriginal inhabitants of a region.

Indigenous Knowledge: subcategory or type of traditional knowledge rooted in the fundamental distinction that forms the core of Indigenous difference: the Indigenous worldview.

Interdisciplinary: a form of academic inquiry that crosses traditional disciplinary boundaries. A form of study that incorporates perspectives and analysis from several academic disciplines.

Nordicity: a term coined by Canadian geographer Louis-Edmond Hamelin to mean the state or quality of being northern.

Subarctic: the forested region south of the Arctic Circle; of or related to the subarctic.

Traditional Knowledge: the unified knowledge that originates from, and is characteristic of, a particular society and its culture.

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Supplementary Materials

Arctic Human Development Report (2004), "Chapter 1: Introduction"
<http://www.beta.undp.org>

Answer to Learning Activity 2

Physical and mechanical engineers would be required, and they rely on mathematics, chemistry and physics disciplines. A gas pipeline would also be a business investment and could be evaluated by economists to determine the profitability of the venture. Additionally, because such a project would affect the environment, geologists, geochemists, hydrologists and biologists would be required to assess the physical placement of the pipelines and the effect on the environment.