The Arctic Circle Essay, Research Paper

Ditions enclose roughly the same territory, which is somewhat larger than the region bounded by the Arctic Circle, and will be used as the basis for this article.The largest Arctic tundra areas are in Canada, Russia, Greenland (Kalatdlit-Nunat), Scandinavia, Iceland and Alaska.Climate and Land Formation Tundra climate is characterized by harsh winters, low average temperatures, little snow or rainfall, and a short summer season (Goudie 1993). The arctic tundra, in particular, is influenced by permafrost, a layer of permanently frozen subsoil in the ground. The surface soil, which tends to be rocky, thaws in summer to varying depths. The combination of frozen ground and flat terrain on the tundra impedes the drainage of water. Held at the surface or saturating the upper layer of soil, the water forms ponds and bogs that provide moisture for plants, thereby counteracting the low precipitation.In relatively well-drained locations, the periodic freezing and thawing of the soi gy are also extremely important. Some animals adapt well to Arctic conditions; for instance, a number of species of mammals and birds carry additional insulation, such as fat, in cold months (Urquhart 1995).The Arctic has more than 400 species of flowering plants. The vast stretches of tundra that cover the plains and coastal regions consist of low creeping shrubs, grasses, thick growths of lichens and mosses, and herbs and sedges.Abundant animal life inhabits the Arctic, both on land and in the sea. Arctic mammals include polar bear, arctic fox, ermine, marten, arctic wolf, wolverine, walrus, seal, caribou, reindeer (domesticated caribou), musk-ox, lemming, arctic hare, and many species of whale.Birds are plentiful throughout the Arctic Regions. The guillemot and little auk nest by the thousands along cliffs. Ravens, snow buntings, and sandpipers have been seen in the remotest northern land regions, as have the snowy owl and the gyrfalcon. Various species of gull, including the jaeger, also range far t laska and northern Canada still follow a subsistence lifestyle. They live as their ancestors have, measuring their lives with the caribou.The Porcupine caribou herd sustains some 7,000 aboriginal people in northern Canada and Alaska. They rely on caribou meat for food and on the herd for learning the ways of their culture. For the Gwich’in, which means “caribou people,” this animal is the spiritual center of life. Young men learn from their fathers and uncles how to hunt wisely and use all parts of the animal. Young women learn from their mothers and aunts how to preserve the meat and take care of the hides. Elders share their knowledge with their people, teaching them how to make valuable medicines and clothing from the caribou.Today the essentials of life, the values and social order of the Gwich’in depends upon nature’s natural cycle, and the return of the caribou. For these people, the caribou must return each year forever.If the Porcupine caribou herd is disrupted, even for a few years, ding air currents bearing pollution from the industrial countries and the fact that most of the pollutants biomagnify in fat are threatening the very survival of humans and animals living in the Arctic. Fat is packed with energy making it possible for marine animals and humans to survive in the Arctic (meat and sugar diets are not adequate in the frigid climate) but the fat diet magnifies pollution. The international fund for animal welfare recently found arctic seals to be polluted with 29 chemicals including pesticides, PCBs, arsenic, mercury, cadmium as well as hydrocarbons from petrol soot and tar. The seals milk contained radioactive caesium-137 and strontium 90 from reactor wastes. Polar bears, walruses and humans top the food chain and bear pollution loads that have begun to threaten their survival. When PCBs reach a critical level in fat, males loose the ability to produce sperm, the most efficient food gatherers are sterilized first leaving profound impacts on the evolution of the animals. T rmer Soviet Union, Eastern Europe and North America. DDT long banned in Canada and the United States is used extensively in Central and South America and is a threatening pollutant of the Arctic. A recent study traced DDT and PCBs from the Caribbean (including industrial Merida) up the Mississippi Valley to Southwestern Ontario and presumably beyond to the Arctic. Canadian and United States industries fleeing to Mexico for cheap labour and lax environmental controls are clearly threatening the very existence of Canadians and polar animals. On Goodfriday 1987 the Exxon Valdez ran aground in the Prince William Sound, spilling 11 million gallons of crude oil into the surrounding ocean. Prevailing winds and currents produced a slick on 1500km of pristine coastline. The damage caused by an oil tanker unlicensed to be so close to the coast caused the worst ecological damage in the area to date:980 dead Sea Otters146 dead Bald Eagles 33,126 other seabirds killed through suffocation, poisoning or exposur fe Range the Arctic National Wildlife Refuge, and enlarged the Refuge to 19 million acres, most of the former Range a part of the Wilderness Preservation System.There is opposition towards this:- worldwide consumption of oil is growing. There is pressure on the US Governmetn from lobbyist groups from the oil industry to find new sites of extraction for oil and other raw materials to reduce it.s reliance on the OPEC countries and also to continue the present day growth in it.s economy. The American Petroleum Institute claims the coastal plain of the Arctic National Wildlife Refuge might produce as much as 250 thousand barrels of crude oil per day, that is about 105 million barrels per year.In November, 1991, legislation that would have opened the Arctic Refuge to drilling reached the Senate floor, but was defeated on a procedural vote. A February, 1992, effort to add it to a Senate energy bill was dropped due to limited support. However, the drilling proposal could be brought up again at any time.. erica. DDT long banned in Canada and the United States is used extensively in Central and South America and is a threatening pollutant of the Arctic. 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