

What are Antarctic ecosystem services?

Antarctic ecosystem services are rich and diverse and include global climate modulation, biodiversity and habitat protection, cultural heritage, scientific knowledge, education and recreation as well as the extraction of marine living resources.

What is the energy demand in Antarctica during winter?

Overall, it can be seen that during the Antarctic winter the energy demand is highest, even when the population of a station is the lowest. The energy demand for Jang Bogo Station and King Sejong Station is shown in Figure 4 as primary fuel demand. Figure 4.

Are there alternative energy sources in Antarctica?

Interest in alternative energy sources in Antarctica has increased since the beginning of the 1990s [1, 6]. In 1991, a wind turbine was installed at the German Neumayer Station . One year later, in 1992, NASA and the US Antarctic Program tested a photovoltaic (PV) installation for a field camp .

Are Antarctic terrestrial ecosystems isolated from the rest of the world?

Antarctic terrestrial ecosystems are not entirely isolated from those of the rest of the world. A commonly predicted consequence of environmental change is that native species distributions will change, and that non-native species will invade.

How does tourism affect ecosystem services in Antarctica?

Developments and diversification of the tourism industry can have important repercussions for the functioning of ecosystems and on the conservation of Antarctic biodiversity if they are not controlled. Fig. 9. Conceptual panel of ecosystem services trade-offs. Evaluation of trade-offs between the main ecosystem services operating in Antarctica.

Can renewable electricity be used in Antarctica?

Several renewable electricity generation technologies that have proven effective for use in the Antarctic environment are described, as well as those that are currently in use. Finally, the paper summarizes the major lessons learned to support future projects and close the knowledge gap.

*Cinachyra antarctica* is a species of antarctic sponge belonging to the family Tetillidae. It was first described by H.J. Carter in 1872. A 2002 study in Antarctica calculated that this sponge and another antarctic sponge, *Anoxycalyx joubini*, have amazingly long lifespans surpassing 1,550 years in *C. antarctica* and 15,000 years in *A. joubini*. *A. joubini* lives in deeper waters than *C. ...*

This endangered mandrill (*Mandrillus sphinx*) was photographed by National Geographic Photographer Joel Sartore on Bioko Island, Equatorial Guinea, in his ambitious project to document every species in

captivity--inspiring people not just to care, but also to help protect these animals for future generations. Before drills disappear, like this webpage has, learn how ...

Antarctic wildlife, however, has been at risk of endangerment mainly due to human intervention that has peaked with the development of research stations and increased scientific activities. Another primary factor affecting the ways of life of Antarctic animals is climate change, which in its severe form, can cause significant population depletion.

The habitat of the Antarctic fur seal covers the islands around Antarctica, rather than the continent itself. The largest colonies are found in South Georgia Island. ... Albatross has overall a light ...

Science and tourism both have the potential to damage the very qualities that draws them to Antarctica. Scales of environmental impacts in Antarctica. Environmental impacts in Antarctica occur at a range of scales. Global warming, ozone depletion and global contamination have planet-wide impacts. These affect Antarctica at the largest scale.

Complete Genome Sequence and Comparative Analysis of *Synechococcus* sp. CS-601 (SynAce01), a Cold-Adapted Cyanobacterium from an Oligotrophic Antarctic Habitat Jie Tang 1 Key Laboratory of Coarse Cereal Processing, Ministry of Agriculture and Rural Affairs, School of Pharmacy and Biological Engineering, Chengdu University, Chengdu 610106, China ...

The mountains in Antarctica are often entirely covered by an ice sheet which can be up to 4 km thick. Only the highest Antarctic mountains are seen through the top of this ice-cap. This ice covers 98% of Antarctica leaving only a few bare rocky areas. Surrounding islands. In the sub-Antarctic region there are lots of small islands.

Antarctic Huskies, the story of dogs in Antarctica. Dogs first arrived in Antarctica on the 17th of February 1899 when 75 were landed by the ship Southern Cross of the British Antarctic Expedition of 1898 - 1900 at Cape Adare in the Ross Sea ...

This Antarctic PowerPoint would be an ideal introduction to the Antarctic for students, providing both well-researched information and engaging visuals. It's a great first impression for the whole continent. What animals live in an Antarctic habitat? Antarctica is far too cold for people to live there permanently, and there are no native ...

Energy flow in native Antarctic terrestrial ecosystems is dominated by the microbial decomposition cycle . The introduction of grazing and predatory invertebrate guilds in synergy with climate change could generate a tipping ...

Amazing antarctic animals - learn about penguins, seals, fish, birds, squid, krill and whales. Plants and microbes. Antarctica and its waters are home to lichens, mosses and liverworts, algae, kelp and microscopic organisms. Environmental ...

By collecting the latest data available on renewable energy deployment in Antarctic stations, this article provides a snapshot of the progress towards fossil fuel-free facilities in the Antarctic, ...

Global changes may have effects that impact directly on the Antarctic environment and its fauna and flora. Global warming may contribute to break-up ice-shelves causing loss of habitat for animals dependent on the ice-shelf as well as the effect of increasing sea level on low-lying regions in the rest of the world.

Antarctica holds a great number of inland lakes whose characteristics vary from ultra-oligotrophic to hypereutrophic, and from freshwater to hypersaline. The harsh conditions in these ecosystems (extremely low temperatures, large annual variation in solar radiation, light limitation below the ice) account for adaptive strategies of the selected phytoplankton species; ...

Science and tourism both have the potential to damage the very qualities that draws them to Antarctica. Scales of environmental impacts in Antarctica. Environmental impacts in Antarctica occur at a range of scales. Global ...

Photos courtesy of Scott Kinmartin and Andrew Fogg via Flickr.. A defining characteristic of plants is their ability to produce energy through photosynthesis. Through this process, plants capture the sun's energy and use it to fuel ...

Web: <https://www.solar-system.co.za>

