The continent of Antarctica makes up most of the Antarctic region.Lesser Antarctica, in fact, is part of the "Ring of Fire," a tectonically active area around the Pacific Ocean. Tectonic activity is the interaction of plates on Earth's crust, often resulting in earthquakes and volcanoes. Mount Erebus, located on Antarctica's Ross Island, is the southernmost active volcano on Earth. The majority of the islands and archipelagos of Lesser Antarctica are volcanic and heavily glaciated. They are also home to a number of high mountains. The oceans surrounding Antarctica provide an important physical component of the Antarctic region. The waters surrounding Antarctica are relatively deep, reaching 4,000 to 5,000 meters in depth. Climate?Antarctica has an extremely cold, dry climate. Winter temperatures along Antarctica's coast generally range from −10?C to −30?C. During the summer, coastal areas hover around 0?C but can reach temperatures as high as 9?C. In the mountainous, interior regions, temperatures are much colder, dropping below −60?C in winter and −20?C in summer. In 1983, Russia's Vostok Research Station measured the coldest temperature ever recorded on Earth: −89.2?C. An even lower temperature was measured using satellite data taken in 2010: −93.2?C. Precipitation in the Antarctic is hard to measure. It always falls as snow. Antarctica's interior is believed to receive only 50 to 100 millimeters of water (in the form of snow) every year. The Antarctic desert is one of the driest deserts in the world. The Antarctic region has an important role in global climate processes. It is an integral part of Earth's heat balance. The heat balance, also called the energy balance, is the relationship between the amount of solar heat absorbed by Earth's atmosphere and the amount of heat reflected back into space. Antarctica has a larger role than most continents in maintaining Earth's heat balance. Ice is more reflective than land or water surfaces. The massive Antarctic Ice Sheet reflects a large amount of solar radiation away from Earth's surface. As global ice cover decreases, the reflectivity of Earth's surface also decreases. This allows more incoming solar radiation to be absorbed by Earth's surface, causing an unequal heat balance linked to global warming, the current period of climate change. Interestingly, NASA scientists have found that climate change has actually caused more ice to form in some parts of Antarctica. The waters surrounding Antarctica are a key part of the "ocean conveyor belt," a global system in which water circulates around the globe based on density and currents.The ACTM and IAATO hope more sustainable tourism will reduce the environmental impacts of the sensitive Antarctic ecosystem.Flora and Fauna?Lichens, mosses, and terrestrial algae are among the few species of vegetation that grow in Antarctica.Blue, fin, humpback, right, minke, sei, and sperm whales have healthy populations in Antarctica.Their wings serve as flippers as they "fly" through the water in search of prey such as squid and fish. The Heroic Age?Because early explorers confronted extreme obstacles and debilitating conditions, this period of time became known as the "Heroic Age."More of this vegetation grows in the northern and coastal regions of Antarctica, while the interior has little if any vegetation.Fish and a large variety of marine mammals thrive in the cold Antarctic waters.The plan failed.