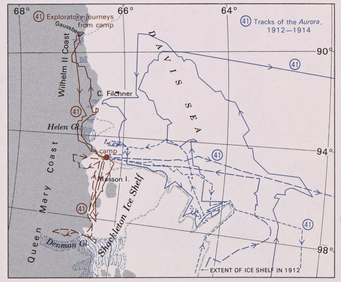
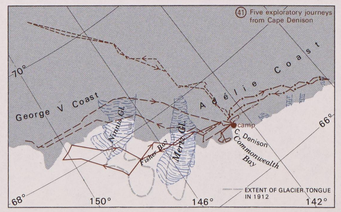
Blue: ship tracks
Brown: ground traverses and stations

NOTE: See Plate 10 for additional geographic names





NOTES

Bibliographic numerals given with historical summaries refer to the text section headed "Bibliography Sources." Bold-face numerals indicate sources of expedition data given on the maps.

(37) 1910–1912 Norway
(37) Leader: Roald Amundsen
Sponsors: Don Pedro Christophersen and other private donors
Ship: *Fram*
Purpose: To reach the South Pole
Bibliography: 1, 2, 3, 22, 35, 86, 104

Roald Amundsen had dreamed of reaching the North Pole and exploring the Arctic Ocean. As he struggled to organize such an expedition, the world learned of Peary's success in attaining the North Pole. Now only a victory over the as yet unconquered South Pole would attach sufficient luster to his name to enable him to raise finances for a subsequent, less popular, Arctic expedition. Thus Amundsen set the South Pole as his objective. He carefully planned how to reach it, and return in safety and good health; his scientific ambitions were minimal. The *Fram* reached the Bay of Whales in January 1911, dropped off Amundsen's party, and sailed north before winter set in, to do oceanographic work in the South Atlantic. A camp, 'Framheim,' was established on the Ross Ice Shelf, and several preliminary trips were made to lay depots of provisions for next season's South Pole journey. On October 19, 1911, the polar party led by Amundsen traveled south on the Ross Ice Shelf and ascended the Axel Heiberg Glacier to the polar plateau. Dogs pulled the sledges. The party reached the area of the South Pole on December 14, and spent the next three days trying to determine its exact location. They planted the Norwegian flag on December 16, and the next day they began the return trip, arriving at the Bay of Whales on January 25, 1912. While Amundsen was making his historic journey, Lt. K. Prestrud and two other members of the expedition sledged to the supply depot at 80°S, then east and north on the Ross Ice Shelf, and northeast across Edward VII Peninsula to the outcrops now known as the Scott Nunataks. The *Fram*, after finishing her South Atlantic cruise, returned to chart the Bay of Whales, and to pick up the entire party at Framheim.

(38) 1910–1913 Great Britain
(38) Leader: Capt. Robert F. Scott, RN
Sponsors: Private contributions with the support of the Royal Society, and contributions from Commonwealth governments
Ship: *Terra Nova*
Purpose: Scientific work in the Ross Sea area and traverse to the South Pole
Bibliography: 22, 43, 48, 61, 101, 108, 110, 151, 152, 186, 190, 191, 193, 222, 245

Scott's party made magnetic observations and deep-sea soundings en route to the Antarctic and finally reached Ross Island on January 3, 1911. Here the 'main party' set up a base camp at Cape Evans, where they wintered. After a cruise eastward along the Ross Ice Shelf, the *Terra Nova* left the 'northern party' at Cape Adare for the winter and proceeded to New Zealand, discovering Oates Coast on the way. On Ross Island three members of the expedition made a winter journey to Cape Crozier, primarily to study an emperor penguin rookery.

In early November the polar party and supporting groups set out for Beardmore Glacier. Motor-driven vehicles and ponies, on which Scott had greatly relied, proved ineffective, and did not even reach Beardmore Glacier. Thus the men were forced to resort to pulling their own sledges. On January 4, 1912, the last supporting group turned back, at 87°32′S, and the five-man polar party prepared for the final dash to the Pole. On January 17, they finally reached it, only to find that Amundsen had preceded them. The exhausted and disappointed party was incapable of completing the return trip, and by the end of March 1912 all of them had died.

The men who did not accompany Scott on his final journey carried on valuable scientific work in many fields. Geological exploration was conducted in several areas: (1) to the southwest of Ross Island the Koettlitz Glacier, the Ferrar Glacier, and Taylor Valley were explored; (2) a party based at Granite Harbor ascended Mackay Glacier, and found there fossils associated with coal beds; (3) collecting and

Scott's support party

surveying were done on the upper slopes of Mt. Erebus.

In addition to the geological exploration, there were meteorological studies; almost unbroken records of temperature, barometric pressure, and wind duration were taken with self-registering instruments. Records of upper-air temperature and air currents to 8000 m were made with balloons. Studies were also conducted in magnetism and in optics of the atmosphere, and observations made on the aurora and on ice conditions.

The party at Cape Adare explored and charted the Robertson Bay area, and made geological collections. (They also found on the slopes what R. Priestley described as 'an immense number of small red insects.') On her return trip during the second summer the *Terra Nova* took the party from Cape Adare to Terra Nova Bay where they continued their explorations. Because the ship was prevented by pack ice from returning for them, they were stranded on Inexpressible Island for the winter, and made the journey to Cape Evans on foot in the spring. En route they found and took with them rock specimens left by David in 1908 at Depot Island.

Part of Scott's expedition returned to New Zealand in March 1912; the rest of the party left in January 1913 after a search party found the bodies of Scott and his companions and recovered their journals, as well as thirty-five pounds of geologic specimens which the man had dragged with them.

The party on the *Terra Nova* used each voyage to and from Antarctica as an opportunity for research in marine biology. A great many varieties of plankton were collected in nets; water samples were taken, and dredges were made of the ocean bottom.

Amundsen's party at the South Pole

(39) 1911–1912 Japan
(39) Leader: Lt. Choku Shirase
Sponsors: Count Okuma and other private individuals
Ship: *Kainan Maru*
Purpose: To reach the South Pole
Bibliography: 85, 98, 101, 216

Lt. Shirase had long dreamed of organizing a South Polar expedition, and finally was able to set out for the Antarctic in November 1910. The party reached New Zealand in February, and by March 12, 1911 the *Kainan Maru* had reached 74°16′S, 172°07′E. Here severe pack ice forced a retreat. After wintering in Australia, the party set out for Antarctica again in November 1911. The original plan of attempting to reach the Pole itself was now abandoned, probably because the plans of Scott and Amundsen had become known. On January 16, 1912 the *Kainan Maru* reached the eastern end of the Ross Ice Shelf and the party landed in an inlet which they named Kainan Bay. After a short exploratory visit the ship steamed westward to the Bay of Whales where a four-man party set up a camp. From this camp, two of the men journeyed southeastward on the Ross Ice Shelf to 80°05′S, 156°37′W. Meanwhile, the *Kainan Maru* sailed eastward to Edward VII Peninsula; at 70°56′S, 155°55′W a party went ashore and sledged to the Alexandra Mountains. Upon their return to the ship, they steamed back to the Bay of Whales to pick up the four men at the camp and on February 4, 1912, the party headed north. During her stay, the *Kainan Maru* had encountered the *Fram* on at least two occasions, on her way to or from Amundsen's base, Framheim.

(40) 1911–1912 Germany
Leader: Dr. Wilhelm Filchner
Sponsors: Government grant and private contributors
Ship: *Deutschland*
Purpose: Transcontinental traverse
Bibliography: 22, 76, 77, 101, 119, 232, 241

William S. Bruce had proposed a plan for determining whether Antarctica was a single landmass or was divided by a channel connecting the deeply penetrating Weddell and Ross Seas. Separate parties would set out from the borders of the two seas and move southward toward the Pole. Dr. Filchner made plans to carry out this idea but was unable to raise sufficient funds. His financial resources did allow him to implement one half of the plan, however. A single party was to penetrate the Weddell Sea as deeply as possible and set up a base camp from which sledge journeys would probe southward. Leaving South Georgia on December 11, 1911, the *Deutschland* sailed westward along the coast of Queen Maud Land and discovered Luitpold Coast. The ship's efforts to push farther south were abruptly stopped by the ice shelf that now bears Filchner's name. This massive body of ice appeared to be a solid foundation upon which to erect huts. As soon as the camp was built, however, the edge of the ice shelf broke off, and the camp was set adrift on a massive iceberg. Fortunately the party was able to retrieve the bulk of the expedition's equipment from the drifting ice and carry it to locations farther back on the ice shelf; meanwhile a two-man party made a short surveying journey to the nunataks visible in the distance. Because of the loss of the huts a new camp could not be established and the party returned to the ship. During the voyage northward the *Deutschland* was trapped in the ice of the Weddell Sea for nine months. As the ship drifted with the pack ice the party was able to study the characteristics of the ice which held them fast. Many sledge journeys were made from the ship, but no land was sighted.

(41) 1911–1914 Australia and Great Britain (Australasian Antarctic Expedition)
(41) Leader: Sir Douglas Mawson
Sponsors: Australian and British governments, scientific societies, and private individuals
Ship: *Aurora*
Purpose: Scientific and geographical research
Bibliography: 93, 101, 138, 139, 242

Mawson's expedition arrived at Macquarie Island in December 1911, and disembarked a party of five scientists who would map the island and set up a wireless station. From there the *Aurora* sailed southward and then westward to Commonwealth Bay where Mawson established his main base at Cape Denison. The weather conditions were extremely severe; blizzards were frequent even in summer, and winds of 25 meters per second, gusting to 90 meters per second, were not uncommon throughout the winter. During the summer of 1912–1913, five parties simultaneously explored the region: one mapped the coastline to the east as far as Mertz Glacier. A second party explored the coastline farther east—to 150°21′E—and named the region King George V Land (now called George V Coast); during the journey magnetic readings were taken and rock samples collected. A 'southern' party sledged to within 80 km of the South Magnetic Pole; magnetic data from that journey were particularly valuable. Mawson with two others traveled inland across the Mertz and Ninnis Glaciers (named for Mawson's companions). The outward journey ended when Lt. Ninnis fell to his death down a crevasse; during the return Mertz died of an illness believed to be brought on by unsuitable and insufficient food. Mawson, man-hauling a half-sledge, and himself in weakened condition, traveled the remaining 140 km alone. The fifth party attempted unsuccessfully to use an air-tractor sledge. The journey was to the west of Cape Denison over a region mostly at an elevation of 1200 m. Wind and snowdrift were severe. At every opportunity all parties collected lichens, algae, mosses, and rock samples; the depth, temperature, and composition of the ice were investigated when feasible. The party at the main camp put in operation a wireless station, and sent out and received messages via the Macquarie Island station—the first by any polar expedition. Magnetograph records were kept for a period of 18 months; regular meteorological observations extended over two years.

Meanwhile, Capt. Davis in the *Aurora* sailed westward past Wilhelm II Coast; he discovered Davis Sea and Queen Mary Coast, and set the western party under Frank Wild down on the Shackleton Ice Shelf, where his party set up a camp. The *Aurora* left the Antarctic in February 1912, and in the time before her return in January 1913 carried out oceanographic cruises in the Subantarctic, designed to delineate the floor of the ocean between Australia and the Antarctic. The *Aurora* also found six specimens of the rare Ross seal.

Wild and his men surveyed the coastline to the west to Drygalski's old base at Gaussberg, and to the east as far as Denman Glacier. The men also made magnetic, geological, glaciological, and biological studies, and discovered a large emperor penguin rookery.

When the *Aurora* returned the next season she anchored off Cape Denison, where Capt. Davis planned to relieve the main base. Mawson had not yet returned from his journey, and Davis finally decided to relieve the western base. He heard en route of Mawson's return, and of the deaths of Ninnis and Mertz. By the time Davis had picked up Wild and his men it was too late in the season for the ship to return to Cape Denison, so the *Aurora* returned to Australia, leaving Mawson's party in the Antarctic for another winter. Funds were raised so that Davis was able to return to the Antarctic in December 1913 to pick up the wintering party; on the way home the expedition charted from the sea the coastline between Mertz Glacier and Gaussberg.

Leaning on the wind (from Mawson, 1915).

(42) 1914–1916 Great Britain (British Imperial Trans-Antarctic Expedition)
Leader: Sir Ernest Shackleton
Sponsors: Sir James Caird, other private donors, British government, and Royal Geographical Society
Ships: *Endurance* and *Aurora*
Purpose: Transcontinental exploration
Bibliography: 22, 43, 59, 101, 108, 144, 219, 238, 239

The objective of Shackleton's voyage was to make a transcontinental traverse, such as had been envisioned by Bruce and Filchner. A traverse party was to be landed on the Weddell Sea coast and a smaller party on Ross Island. The latter group would lay provision depots for use by the traverse party as it descended the Beardmore Glacier and crossed the Ross Ice Shelf. The first party, under Shackleton, sailed in the *Endurance* from South Georgia toward the Weddell Sea on December 5, 1914. Caird Coast was discovered en route and named after a sponsor of the expedition. On January 12, the ship was beset at 76°34′S, 31°30′W, whence she drifted northwestward. Camp was set up on the ice nearby, and the ship's two scientists collected marine specimens from the edge of the floe. The ice pressure became so intense that on October 27, 1915, the *Endurance* was crushed and sank, taking with her the biologists' specimens, several valuable diaries, and supplies. Equipment and supplies from the ice camp were then sledged to the larger, stronger 'floe where 'Camp Patience' was erected. In April 1916, after the floe had drifted past Joinville Island and was nearing Elephant Island, the men set out in three boats which had been rescued from the *Endurance*. They succeeded in reaching Elephant Island where 'Camp Wild' was established. Shackleton and five of the men then set out in an open whale boat for South Georgia where rescue might be obtained. After fourteen days they reached their destination, and in August 1916, after unsuccessful attempts by three different vessels, a Chilean ship, the *Yelcho,* finally rescued the men on Elephant Island.

Meanwhile, in January 1915, the Ross Island party, commanded by Capt. A. Mackintosh, arrived at Cape Evans, where Mackintosh himself led one of the unloading parties. He therefore was not aboard when the *Aurora* broke from her ice moorings in May 1915. The ship, now under the command of J. R. Stenhouse, drifted with her crew for about ten months. The drift was valuable for information gained on the direction and force of the currents, which were found to be extraordinarily swift in winter and much slower in summer. The members of the party who had been stranded at Cape Evans, not knowing the fate of Shackleton's party, proceeded to lay tons of provisions in depots between the base and the Beardmore Glacier in preparation for the last phase of Shackleton's proposed Transantarctic journey. During this operation, Mackintosh and two others lost their lives. In January 1917 the remaining members of the Ross Island party were rescued by the *Aurora,* which had finally succeeded in reaching New Zealand, been refitted, and returned with Shackleton on board. Some geologic and biological specimens were collected during the final period at Ross Island, but in general, little scientific work was done.

(43) 1920–1922 Great Britain
Leader: J. L. Cope
Sponsors: Private enterprise, with the aid of Norwegian whalers
Ships: Various whaling ships
Purpose: To map west coastline of Weddell Sea
Bibliography: 7, 87, 101, 126, no map

A party of four scientists was landed near Andvord Bay on the west coast of the Antarctic Peninsula on January 21, 1921. The men searched unsuccessfully for some route over which they could sledge via the inland plateau to the Weddell Sea. Two of the men took advantage of an opportunity to return home, but the other two remained at Andvord Bay camp for the winter to carry on as much scientific work as possible. Regular meteorological and tidal observations were taken; ice movements were charted daily and some surveying accomplished. Geologic specimens were studied, and records kept on bird and mammal life.

(44) 1921–1922 Great Britain
Leader: Sir Ernest Shackleton
Sponsor: John Q. Rowett
Ship: *Quest*
Purpose: Exploration and mapping
Bibliography: 101, 108, 193, 221, 233, 234

The *Quest* sailed on September 17, 1921 to explore and map the relatively unknown area between Coats Land and Enderby Land. Under Shackleton, Wild and Worsley headed the crew which also included Hubert Wilkins, taken aboard as a naturalist. After a complete overhaul in Rio de Janeiro, the *Quest* sailed for South Georgia where she encountered very rough seas. The strenuous responsibility of commanding the *Quest* through these Subantarctic storms aggravated a heart condition from which Shackleton had been suffering and the great explorer died on the night of January 5, 1922. The crew, now under Frank Wild's command, had little inclination to continue, but Wild felt it his responsibility to accomplish something during the expedition. Despite severe ship leakage and the lateness of the season, he set out from South Georgia on January 18 and sailed to the South Sandwich Islands, where he made a running survey of Zavodovski Island. The expedition then sailed to the Weddell Sea, where the party searched for land reported by Ross and for Morrell's 'New South Greenland,' but no land was sighted. The *Quest* next visited Elephant Island. Damage from a storm there forced the expedition to return to South Georgia.

(45) 1923–1924 Norway
Manager: Carl Anton Larsen
Ships: *Sir James Clark Ross* and five catchers
Purpose: Whaling
Bibliography: 120, 227, no map

Having acquired a license form the New Zealand government, this expedition undertook the first whaling in the Ross Sea; one of the catchers made exploratory voyages to examine the possibilities of using the Bay of Whales, McMurdo Sound, Franklin Island, or the coast of Victoria Land as bases of operation for whaling fleets. Traveling aboard the mother ship were Ludwig Kohl, the ship's doctor, and a Swedish naturalist. These two scientists made a short journey over the Ross Ice Shelf, and made geological, meteorological, and zoological studies; they later published a report of their findings.

(46) 1925–1926 Norway
Ship: *Lancing*
Purpose: Whaling
Bibliography: 13, 134, no map

Capt. H. C. Melsom installed the first hauling-up slipway on this vessel, which permitted whalers to haul a whale on board, and process it completely at sea, thus inaugurating pelagic whaling in the Antarctic. The factory ship of this type was often accompanied by several catchers, two or three buoy boats to mark the whales, two corvettes to haul them to the factory, and sometimes a tanker. The *Lancing* visited South Georgia, the South Orkney Islands, the South Shetland Islands, and Palmer Archipelago. Since whaling was no longer land based, the size of a catch could not be easily regulated and whale stocks were considerably reduced as a result of this innovation.

Ice shelf limits on the maps are not necessarily in accord with conditions at the time of the expeditions shown.