XII. Kill/Capture Permits Issued Pursuant to Annex 2 of the Protocol

The following chart provides information on Antarctic Conservation Act (P.L. 95-541) Permits issued during 1 July 1997 to 30 June 1998.

See also Attachment B, Kill/Captured Forms.

Permit #	Active Dates	Permit Activity	<u>Location</u>	<u>Purpose</u>
98-002	01 Oct 97 – 28-Feb-98	Take	Dawson- Lambton Glacier, Filchner Ice Shelf	Collect up to 60 late-hatching Emperor chicks, that would not normally survive, and trans-ship through the U.S. to the Nagoya Aquarium in Japan for scientific purposes, zoological display and education.
98-004	01 Oct 97 – 28 Feb 2000	Taking/Import into U.S.	McMurdo Sound	Temporary attach video cameras to about 15 Weddell seals to study underwater behavior, locomotor performance and energy metabolism during foraging dives. Collect blood and tissue samples for analysis of metabolites and myoglobin.
98-005	01 Oct 97 – 01 Apr 98	Taking/Import into U.S./entry into SSSI	Admiralty Bay (SSSI #8)	Collect samples to study behavior ecology and population biology of Adelie, gentoo and chinstrap penguins and interactions between their avian predicators: skuas, gulls, sheath-bills and giant fulmars.

Permit #	Active Dates	Permit Activity	Location	<u>Purpose</u>
98-006	01 Nov 97 – 30 Nov 97	Entry into SSSI	Barwick Valley (SSSI #3)	Obtain hydrological data on lake levels and ice thickness to extend baseline data in Barwick Valley and contribute to ongoing investigations of lake ice dynamics in the Dry Valleys carried out by the LTER Exobiology projects.
98-007	01 Oct 97 – 01 Mar 98	Introduction into Antarctica	Crary Lab, McMurdo Station	Introduction of New Zealand Black Cod to determine the role of antifreeze glycopeptides in freezing avoidance.
98-008	01 Nov 97 – 28 Feb 99	Entry into SPA	Beaufort Island (SPA #5)	Temporary installation of GPS receivers to measure the motion of the island with respect to the Transantarctic Mountains due to mountain building activity and related processes.
98-009	15 Oct 97 – 30 Apr 99	Taking/Import into U.S. /entry into SPA/SSSI	Admiralty Bay (SSSI #8), Litchfield Island (SPA #17), and Biscoe Point (SSSI #20)	Collect shoots and seeds of antarctic grass hair and antarctic perl wort to examine changes in photosynthesis, growth and reduction following warming or exclusion of different UV components.
98-011	01 Oct 97 – 31 Dec 97	Introduction into Antarctica	Crary Lab, McMurdo Station	Introduction of eight species of non-pathogenic microorganisms for bioassay of marine invertebrate extracts.
98-012	01 Oct 97 – 31 Dec 97	Taking/Import into U.S.	McMurdo Sound	Collection of Weddell seal blood and tissue samples for DNA extraction and toxin analysis to supplement research into the paternity and genetic characteristics of the McMurdo populations.
98-013	01 Oct 97 – 31 Dec 97	Taking/Import into U.S./entry into SPA/SSSI	White Island (SSSI #18)	Tag adult Weddell seals and collect blood and tissue samples from 5-8 pups as part of a continuing population biology study.

Permit #	Active Dates	Permit Activity	Location	Purpose
98-014	31 Oct 97 – 28 Feb 98	Taking/entry into SSSI	Barwick Valley (SSSI #3)	Conduct mapping project to determine the former extent of a g rounded ice sheet in the Ross Sea during the last glacial maximum. Collect tiny samples of fossil algae and carbonates for radiocarbon dating.
98-015	01 Dec 97 – 31 Dec 2000	Entry into SPA	Byers Peninsula (SPA #3)	Install GPS to measure horizontal tectonic motion of the Snow Island-Livingston Island-King George Island block relative to the Antarctic Peninsula and sites in South America.
98-016	25 Nov 97 – 31 Jan 98	Entry into SSSI	Cape Royds (SSSI #1)	Survey Pony Lake and collect soil samples to isolate and identify natural organic material.
98–017	01 Jan 98 – 31 Jan 98	Entry into SPA/ SSSI	New College Valley (SPA #20) and Caughley Beach (SSSI #10), Cape Bird	Installation of an Automatic Weather Station (AWS) at Cape Bird to study local climate and provide valuable data for weather forecasting in the Ross Island Area. (Site requires uniform area of 100x100m. The AWS will be installed outside protected areas unless no other suitable site is located.)
98-018	01 Dec 97 – 31 Dec 97	Entry into SSSI	Tramway Ridge (SSSI #11)	Measure temperature of the soil to monitor the volcanic activity of Mount Erebus. Measure quantity of CO ₂ to determine its flux into the atmosphere to gain information on the degassing behavior of the magmatic system under-lying Mount Erebus.
98-019	25 Nov 97 – 31 Mar 99	Taking/Import into U.S.	South Orkney and South Shetland Island, and Antarctic Peninsula area	Collect blood and tissue samples from various species of penguins to compare small genetic differences among populations to determine the distribution of genetic variation and predict the colonization history of populations.

Permit #	Active Dates	Permit Activity	<u>Location</u>	<u>Purpose</u>
98-020	07 Jan 98 – 24 Jan 98	Taking/Import into U.S.	Antarctic Peninsula area	Salvage carcasses and remains of penguins, birds and seals for import into the U.S. as teaching aids or for research.
98-021	07 Jan 98 – 31 Dec 2001	Taking/Import into U.S./entry into SSSI	Byers Peninsula (SSSI #6) and Cape Shirreff (SSSI #32)	Conduct census surveys of Antarctic Fur seals and collect blood and tissue samples for continuing studies of Fur seal attendance, energetics, and foraging strategies.

T = Taking; **Imp** = Import into the U.S.; **Intro** = Introduce into Antarctica; **SPA** = Specially Protected Area; **SSSI** = Site of Special Scientific Interest

The following chart provides information on Antarctic Conservation Act (P.L. 95-541) Permits issued during 1 July 1998 to 30 June 1999.

Permit #	Active Dates	Permit Activity	Location	<u>Purpose</u>
99-001	01 May 98 - 31 Aug 98	Taking/Import into U.S.	Ross Sea Pack Ice	Capture us to six Emperor penguins to attach a 130g satellite transmitter and obtain stomach samples to determine diet preferences, diving behavior and distribution patterns of individual birds in the Ross Sea.
99-002	01 May 99 - 01 Sept 99	Taking/Import into U.S.	Marguerite Bay, Bellingshausen Sea	Capture Snow Petrels, and Antarctic Petrels and Southern Fulmarsto obtain diet samples. Adelie, Chinstrap, Emperor penguins will be captured, weighed, measured and lavaged. Samples collected will help determine winter feeding conditions that may determine survival of annual cohorts and breeding adult success.

Permit #	Active Dates	Permit Activity	Location	<u>Purpose</u>
99-003	25 Sept 98 - 30 Apr 99	Taking/Import into U.S./entry into ASPA	Admiralty Bay (ASPA #128)	Collect samples to study behavior ecology and population biology of Adelie, gentoo and chinstrap penguins and interactions between their avian predicators: skuas, gulls, sheath-bills and giant fulmars.
99-004	01 Oct 98 - 28 Feb 2002	Taking/Import into U.S.	McMurdo Sound	Collection of Weddell seal blood and tissue samples for DNA extraction and toxin analysis to supplement research into the paternity and genetic characteristics of the McMurdo populations.
99-005	01 Oct 98 - 28 Feb 2002	Taking/Import into U.S./entry into ASPA	White Island (ASPA #137)	Tag and collect blood and tissue samples from up to 15 Weddell adults and pups as part of a continuing population biology study.
99-006	01 Oct 98 - 28 Feb 99	Introduction into Antarctica	Crary Lab, McMurdo Station	Introduction of New Zealand Black Cod to determine the role of antifreeze glycopeptides in freezing avoidance.
99-007	01 Oct 98 - 30 Apr 2002	Taking/entry into ASPA	Dion Islands (ASPA #107), Litchfield Island (ASPA #113), Avian Island (ASPA #117), and Biscoe Point (ASPA #139	Census, mark, weigh and collect stomach samples of seabirds in a continuation of a study to assess how annual environmental variability affects seabird diets, breeding success, growth rates, survival and recruitment, behavior, population trends, foraging success and seasonal dispersal.
99-008	01 Oct 98 - 30 Apr 2002	Taking/Import into U.S.	Palmer Station and vicinity	Salvage specimens of various species of seabirds and seals that died of natural causes and import into the U.S. for use in museums and educational institutions.

Permit #	Active Dates	Permit Activity	Location	<u>Purpose</u>
99-009	01 Oct 98 - 30 Apr 2002	Taking/Import into U.S.	Palmer Station and vicinity	Census, mark, weigh, collect stomach samples, place radio/satellite transmitters on some individuals to develop foraging effort/dispersal, and use GIS/GPS to map and characterize breeding habitat features of seabirds in a continuation of a study to assess how annual environmental variability affects seabird diets, breeding success, growth rates, survival and recruitment, behavior, population trends, foraging success and seasonal dispersal.
99-010	01 Oct 98 - 01 Apr 2001	Taking/Import into U.S./entry into ASPA	Cape Shirreff, Livingston Island (ASPA #149)	Conduct studies on Antarctic fur seals to determine factors that influence the population dynamics of these animals, e specially feeding ecology, reproductive success, growth and condition, demography, and abundance.
99-011	01 Feb 99 - 28 Feb 2004	Entry into ASPA	Cape Evans, Ross Island (ASPA #154), Cape Royds, Ross Island (ASPA #156); and Discovery Hut, Hut Point (ASPA #157)	Enter Antarctic Specially Protected Areas to conduct educational visits to the historic huts for cruise ship passengers.
99-012	05 Nov 98 - 30 Sep 2003	Entry into ASPA	Cape Evans, Ross Island (ASPA #154), Cape Royds, Ross Island (ASPA #156); and Discovery Hut, Hut Point (ASPA #157)	Enter Antarctic Specially Protected Areas to conduct educational visits to the historic huts for U.S. Antarctic Program participants

Permit #	Active Dates	Permit Activity	Location	<u>Purpose</u>
99-013	15 Dec 98 - 01 Feb 2000	Entry into ASPA	Cape Bird, Ross Island (ASPA #116), Cape Royds, Ross Island (ASPA #121), and Cape Crozier (ASPA #124)	Enter Antarctic Specially Protected Areas to establish geographical coordinates and elevations for reselected photoidentifiable points to meet national mapping accuracy standards for a 1:25,000-scale map of the three sites.
99-014	05 Jan 99 - 01 Feb 99	Entry into ASPA	Beaufort Island (ASPA #105), Cape Hallett (ASPA #106), "New College Valley" (ASPA #116), Cryptogram Ridge (ASPA #118), Forlidas Point & Davis Valley (ASPA #119), Cape Royds (ASPA #121), Arrival Heights (ASPA #122), Barwick Valley (ASPA #123), Cape Crozier (ASPA #124), Tramway Ridge (ASPA #130); Canada Glacier (ASPA #131), N.W. White Island (ASPA #137), and, Linneaus Terrace (ASPA #138)	Enter Antarctic Specially Protected Areas to film scientific projects in the field for educational purposes. Access to sites on an opportunistic basis and under constant supervision and direction.

Permit #	Active Dates	Permit Activity	Location	<u>Purpose</u>
99-015	01 Jan 99 - 01 Apr 2000	Entry into ASPA	Western Shore of Admiralty Bay, King George Island	Access to the site for purposes of moving personnel and supplies from ship to the research field camp/station and conduct maintenance and servicing of station facilities and equipment.
99-016	29 Dec 98 - 28 Feb 99	Introduction into Antarctica	Crary Science and Engineering Lab., McMurdo Station	Introduction of molecular biology DNA cloning kits, containing <i>E. coli</i> , for use in experiments conducted at Crary laboratory facilities. All <i>E. coli</i> cultures will be sterilized and destroyed at the end of the project.
99-017	07 Jan 99 - 15 Feb 2001	Entry into ASPA	"New College Valley", Caughley Beach, Cape Bird (ASPA #116)	Installation of an Automatic Weather Station (AWS) to conduct weather studies in the McMurdo Sound area to provide valuable data for weather forecasting in the Ross Island region.
99-019	07 Jan 99 - 15 Mar 2003	Entry into ASPA	Cape Evans, Ross Island (ASPA #154), Cape Royds, Ross Island (ASPA #156); Discovery Hut, Hut Point (ASPA #157), and Borchgrevink's/ Scott Northern Party Hut, Cape Adare	Enter Antarctic Specially Protected Areas to conduct educational visits to the historic huts for cruise ship passengers.
99-020	08 Feb 99 - 15 Mar 2003	Taking	Antarctic Peninsula and adjacent islands	Salvage seabird and mammal carcasses and bones for laboratory studies and educational purposes in museum collections

T = Taking; **Imp** = Import into the U.S.; **Intro** = Introduce into Antarctica; **ASPA** = Antarctic Specially Protected Area (formerly SPA's and SSSI's)