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**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS,  
Antarctic Peninsula, 1989-2003**

<u>KEY:</u>	ASI	Antarctic Site Inventory survey site
	ZOD	Zodiac rides also take place at this landing site
	ICE	Ice walking also takes place at this site
	HEL	Helicopter landings/overflights also take place at this site
	CAM	Camping also take splace at this site
	CLI	Climbing
	SNO	Snorkeling activity also takes place at this site
	ASPA	Antarctic Specially Protected Area
	ST	Research station on site
	1st LDG	Season when landing site was first visited in 1989-99 time period
	RANK (1-25)	Rank if among 25 sites with most numbers of zodiac landings or visitors participating in zodiac landings
	NS	Landing site not specifically described in NSF/OPP compilations
	NSF/OPP	U.S. National Science Foundation, Office of Polar Programs
	?	Reported as Antarctic Peninsula visitor site in NSF/OPP compilations, but precise location/identity unknown
	SO	South Orkneys subarea of the Antarctic Site Inventory project
	SH	So. Shetland Islands subarea of the Antarctic Site Inventory project
	NE	Northeast subarea of the Antarctic Site Inventory project, from Cape Dubouzet (63°16' S 64°00' W) to James Ross Island
	SW	Southwest subarea of the Antarctic Site Inventory project, from northern end of Lemaire Channel to northern end of Marguerite Bay (68°18' S 67°11' W)
	NW	Northwest subarea of the Antarctic Site Inventory project, from Cape Dubouzet (63°16' S 64°00' W) to the northern end of the Lemaire Channel

NOTE: This table only reflects the Antarctic Site Inventory study area in the Antarctic Peninsula

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90		Visitors by Zodiac Landing	Rank (1-25)
					Zodiac Landings	Rank (1-25)		
Adelaide Island	SW		ZOD	89-90	2	25	183	25
Admiralty Bay, KGI	SH		ZOD	01-02				
Admiralty Sound (between Seymour & Snow Hill Island)	NE		ZOD	96-97				
Aitcho Islands	SH	ASI	ZOD	89-90	2	22	271	21
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	ASI ST	CAM HEL CLI	89-90	2	24	252	24
Alamode Is., Terra Firma Islands	SW		ZOD	00-01				
Alcock Island	NW		ZOD	91-92				
Almirante Brown STATION, Paradise Bay	NW	ST ASI	ZOD SNO	89-90	10	3	1,191	3
Alpha Is., Melchior Islands	NW		ZOD	01-02				
Amphibolite Point, Coronation Islands	SO	ASI	ZOD	01-02				
Andvord Bay	NW		ZOD HEL CAM	00-01				
Anvers Island (nonspecific)	NW	NS	ZOD	00-01				
Apendice Is. (not Stemeck Is.)	SW		ZOD	02-03				
Arago Glacier, Andvord Bay	NW		ZOD	92-93				
Arctowski STATION, King George Island	SH	ST ASI	ZOD	89-90	8	6	930	6
Ardley Island	SH	ASPA	ZOD	89-90	4	18	418	19
Argentine Islands (nonspecific)	SW	NS	ZOD HEL	96-97				
Armstrong Reef, Renaud Is.	SW		ZOD	00-01				
Artigas STATION, King George Island	SH	ST	ZOD	94-95				
Arturo Prat STATION, Greenwich Island	SH	ST	ZOD	91-92				
Astrolabe Island	NW	ASI	ZOD HEL SNO	92-93				
Auguste Island, Gerlache Str.	NW		ZOD	97-98				
Auster Point, Trinity Peninsula	NW		ZOD HEL	00-01				
Baily Head (incl. Rancho Point), Deception Island	SH	ASI	ZOD SNO	89-90	5	16	455	16
Bald Head, Trinity Peninsula	NE	ASI	ZOD	99-00				
Barcroft Islands (so. of Watkins and Biscoe Island)	SW		ZOD	94-95				
Bayard Islands (off west coast, Graham Land)	NW		ZOD	98-99				
Beak Island, Pr. Gustav Channel	NE		ZOD	98-99				
Bellingshausen STATION, King George Island	SH	ST	ZOD	91-92				
Bennett Islands, Hanusse Bay	SW		ZOD	97-98				
Bernardo O'Higgins STATION	NW	ST ASI	ZOD	96-97				
Biscoe Point, Anvers Is. (ASPA)	NW		ZOD	99-00				
Blaicklock Island (off w. coast Graham Land)	SW	ASI	ZOD	94-95				
Bongrain Pt., Pourquoi Pas Island	SW		ZOD	97-98				
Booth Is.	SW	ASI	ZOD SNO	99-00				
Bradbrooke Island, Aitcho Islands	SH	?	ZOD	94-95				
Brandy Bay, James Ross Is.	NE		ZOD	01-02				
Brown Bluff, Tabarin Peninsula	NE	ASI	ZOD	94-95				
Bryde Island (west coast Graham land)	NW		SNO CLI	98-99				
Buls Bay, Brabant Is.	NW		ZOD	97-98				
Camara STATION, Half Moon Island,	SH	ST	ZOD	94-95				
Camp Hill	NE	ASI	ZOD	02-03				
Camp Point (w. side, Graham Land)	SW		ZOD	96-97				
Cape Burd, Tabarin Peninsula	NE	ASI	ZOD	00-01				

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		90-91		91-92		91-92			
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Adelaide Island	SW								
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE								
Aitcho Islands	SH					3	24	285	
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	5	14	432	18	4	21	422	22
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW					1		78	
Almirante Brown STATION, Paradise Bay	NW	16	1	1,471	3	26	1	2,889	3
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW								
Arctowski STATION, King George Island	SH	6	12	601	14	14	10	1,509	10
Ardley Island	SH	2	19	705	13				
Argentine Islands (nonspecific)	SW								
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH								
Arturo Prat STATION, Greenwich Island	SH					2		181	
Astrolabe Island	NW								
Auguste Island, Gerlache Str.	NW								
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	6	13	584	16	14	12	1,182	14
Bald Head, Trinity Peninsula	NE								
Barcroft Islands (so. of Watkins and Biscoe Island)	SW								
Bayard Islands (off west coast, Graham Land)	NW								
Beak Island, Pr. Gustav Channel	NE								
Bellingshausen STATION, King George Island	SH					9	15	966	16
Bennett Islands, Hanusse Bay	SW								
Bernardo O'Higgins STATION	NW								
Bischoe Point, Anvers Is. (ASPA)	NW								
Blaicklock Island (off w. coast Graham Land)	SW								
Bongrain Pt., Pourquoi Pas Island	SW								
Booth Is.	SW								
Bradbrooke Island, Aitcho Islands	SH								
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE								
Bryde Island (west coast Graham land)	NW								
Buls Bay, Brabant Is.	NW								
Camara STATION, Half Moon Island,	SH								
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW								
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		92-93		93-94		93-94		93-94	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Adelaide Island	SW								
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE								
Aitcho Islands	SH	7	18	601	14	3		271	
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	3		274		2		178	
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW					1		14	
Almirante Brown STATION, Paradise Bay	NW	19	7	1,659	5	31	3	3,513	2
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW	6	22	251					
Arctowski STATION, King George Island	SH	10	12	598	15	30	5	3,031	6
Ardley Island	SH	1		113		1		175	
Argentine Islands (nonspecific)	SW								
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH								
Arturo Prat STATION, Greenwich Island	SH								
Astrolabe Island	NW	1		34		3		93	
Auguste Island, Gerlache Str.	NW								
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	10	11	657	13	9	18	990	18
Bald Head, Trinity Peninsula	NE								
Barcroft Islands (so. of Watkins and Biscoe Island)	SW								
Bayard Islands (off west coast, Graham Land)	NW								
Beak Island, Pr. Gustav Channel	NE								
Bellingshausen STATION, King George Island	SH	1		62		1		88	
Bennett Islands, Hanusse Bay	SW								
Bernardo O'Higgins STATION	NW								
Biscoe Point, Anvers Is. (ASPA)	NW								
Blaicklock Island (off w. coast Graham Land)	SW								
Bongrain Pt., Pourquoi Pas Island	SW								
Booth Is.	SW								
Bradbrooke Island, Aitcho Islands	SH								
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE								
Bryde Island (west coast Graham land)	NW								
Buls Bay, Brabant Is.	NW								
Camara STATION, Half Moon Island,	SH								
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW								
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		94-95		95-96		95-96		95-96	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Adelaide Island	SW								
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE								
Aitcho Islands	SH	10	18	667	20	23	11	1,759	13
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	4		267		5		209	
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW								
Almirante Brown STATION, Paradise Bay	NW	43	4	1,307	13	25	10	2,244	11
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW								
Arctowski STATION, King George Island	SH	31	9	2,445	9	21	14	1,724	14
Ardley Island	SH	2		149					
Argentine Islands (nonspecific)	SW								
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH	3		212					
Arturo Prat STATION, Greenwich Island	SH	1		112		1		66	
Astrolabe Island	NW	4		211		2		69	
Auguste Island, Gerlache Str.	NW								
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	32	8	2,576	8	19	16	1,094	18
Bald Head, Trinity Peninsula	NE								
Barcroft Islands (so. of Watkins and Biscoe Island)	SW	1		83					
Bayard Islands (off west coast, Graham Land)	NW								
Beak Island, Pr. Gustav Channel	NE								
Bellingshausen STATION, King George Island	SH	8	23	573	22	10	22	530	
Bennett Islands, Hanusse Bay	SW								
Bernardo O'Higgins STATION	NW								
Biscoe Point, Anvers Is. (ASPA)	NW								
Blaicklock Island (off w. coast Graham Land)	SW	1		9					
Bongrain Pt., Pourquoi Pas Island	SW								
Booth Is.	SW								
Bradbrooke Island, Aitcho Islands	SH	1		136					
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE	2		77		4		223	
Bryde Island (west coast Graham land)	NW								
Buls Bay, Brabant Is.	NW								
Camara STATION, Half Moon Island.	SH	1		96					
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW								
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		96-97		97-98		97-98		97-98	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Adelaide Island	SW					1		57	
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE	3		185					
Aitcho Islands	SH	37	7	2,341	10	31	9	2,499	10
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	6		369		19	12	1,094	17
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW								
Almirante Brown STATION, Paradise Bay	NW	38	6	2,504	8	34	6	3,991	5
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW								
Arctowski STATION, King George Island	SH	22	13	1,789	13	11	18	1,014	18
Ardley Island	SH	1		55					
Argentine Islands (nonspecific)	SW	1		112					
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH					1		7	
Arturo Prat STATION, Greenwich Island	SH	3		224		3		267	
Astrolabe Island	NW	2		105		1		53	
Auguste Island, Gerlache Str.	NW					1		55	
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	14	15	1,133	15	20	11	1,493	12
Bald Head, Trinity Peninsula	NE								
Barcroft Islands (so. of Watkins and Biscoe Island)	SW								
Bayard Islands (off west coast, Graham Land)	NW								
Beak Island, Pr. Gustav Channel	NE								
Bellingshausen STATION, King George Island	SH	6		138		11	19	146	
Bennett Islands, Hanusse Bay	SW					1		56	
Bernardo O'Higgins STATION	NW	1		95					
Biscoe Point, Anvers Is. (ASPA)	NW								
Blaicklock Island (off w. coast Graham Land)	SW								
Bongrain Pt., Pourquoi Pas Island	SW					1		80	
Booth Is.	SW								
Bradbrooke Island, Aitcho Islands	SH								
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE	9	20	553	25	17	13	1,293	15
Bryde Island (west coast Graham land)	NW								
Buls Bay, Brabant Is.	NW					1		56	
Camara STATION, Half Moon Island.	SH	5		672	22	2		395	
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW	1		78					
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		98-99 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	89-99 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing 240	Rank (1-25)
Adelaide Island	SW					3			
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE					3		185	
Aitcho Islands	SH	31	10	2,525	11	147	14	11,219	13
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	22	11	1,626	14	72	20	5,123	24
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW					2		92	
Almirante Brown STATION, Paradise Bay	NW	17	15	1,612	15	259	8	22,381	8
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW					6		251	
Arctowski STATION, King George Island	SH	13	20	1,109	18	166	10	14,750	11
Ardley Island	SH	1		8		12		1,623	
Argentine Islands (nonspecific)	SW	1		59		2		171	
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH	2		181		6		400	
Arturo Prat STATION, Greenwich Island	SH					10		850	
Astrolabe Island	NW					13		565	
Auguste Island, Gerlache Str.	NW					1		55	
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	20	13	2,012	12	149	12	12,176	12
Bald Head, Trinity Peninsula	NE								
Barcroft Islands (so. of Watkins and Biscoe Island)	SW	1		95		2		178	
Bayard Islands (off west coast, Graham Land)	NW	1		57		1		57	
Beak Island, Pr. Gustav Channel	NE	1		51		1		51	
Bellingshausen STATION, King George Island	SH	5		305		51		2,808	
Bennett Islands, Hanusse Bay	SW					1		56	
Bernardo O'Higgins STATION	NW					1		95	
Biscoe Point, Anvers Is. (ASPA)	NW								
Blaicklock Island (off w. coast Graham Land)	SW					1		9	
Bongrain Pt., Pourquoi Pas Island	SW					1		80	
Booth Is.	SW								
Bradbrooke Island, Aitcho Islands	SH					1		136	
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE	14	19	996	23	46		3,142	
Bryde Island (west coast Graham land)	NW	1		17		1		17	
Buls Bay, Brabant Is.	NW					1		56	
Camara STATION, Half Moon Island,	SH					8		1,163	
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW					1		78	
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		89-94			94-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Adelaide Island	SW	2		183	1		57		
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE				3		185		
Aitcho Islands	SH	15	26	1,428		11	9,791	11	
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	16	23	1,558	24	18	3,565	22	
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW	2		92					
Almirante Brown STATION, Paradise Bay	NW	102	2	10,723	3	8	11,658	9	
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW	6		251					
Arctowski STATION, King George Island	SH	68	10	6,669	9	13	8,081	14	
Ardley Island	SH	8		1,411	4		212		
Argentine Islands (nonspecific)	SW				2		171		
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH				6		400		
Arturo Prat STATION, Greenwich Island	SH	2		181	8		669		
Astrolabe Island	NW	4		127	9		438		
Auguste Island, Gerlache Str.	NW				1		55		
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	44	13	3,868	14	12	8,308	13	
Bald Head, Trinity Peninsula	NE								
Barcroft Islands (so. of Watkins and Biscoe Island)	SW				2		178		
Bayard Islands (off west coast, Graham Land)	NW				1		57		
Beak Island, Pr. Gustav Channel	NE				1		51		
Bellingshausen STATION, King George Island	SH	11		1,116	40	23	1,692		
Bennett Islands, Hanusse Bay	SW				1		56		
Bernardo O'Higgins STATION	NW				1		95		
Biscoe Point, Anvers Is. (ASPA)	NW								
Blaicklock Island (off w. coast Graham Land)	SW				1		9		
Bongrain Pt., Pourquoi Pas Island	SW				1		80		
Booth Is.	SW								
Bradbrooke Island, Aitcho Islands	SH				1		136		
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE				46	22	3,142	23	
Bryde Island (west coast Graham land)	NW				1		17		
Buls Bay, Brabant Is.	NW				1		56		
Camara STATION, Half Moon Island,	SH				8		1,163		
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW				1		78		
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-00 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	00-01 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	
Adelaide Island	SW	1				1		107	
Admiralty Bay, KGI	SH								
Admiralty Sound (between Seymour & Snow Hill Island)	NE								
Aitcho Islands	SH	42	10	3,454	8	38	9	3,285	11
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	23	15	1,585	17	37	10	2,811	12
Alamode Is., Terra Firma Islands	SW					1		6	
Alcock Island	NW	2		86		1		64	
Almirante Brown STATION, Paradise Bay	NW	35	11	3,369	9	41	8	4,445	7
Alpha Is., Melchior Islands	NW								
Amphibolite Point, Coronation Islands	SO								
Andvord Bay	NW					1		20	
Anvers Island (nonspecific)	NW					1		6	
Apendice Is. (not Stemeck Is.)	SW								
Arago Glacier, Andvord Bay	NW								
Arctowski STATION, King George Island	SH	22	16	1,901	14	7		688	
Ardley Island	SH								
Argentine Islands (nonspecific)	SW					1		63	
Armstrong Reef, Renaud Is.	SW					1		6	
Artigas STATION, King George Island	SH	2		147					
Arturo Prat STATION, Greenwich Island	SH	4		358		1		107	
Astrolabe Island	NW	5		288		2		54	
Auguste Island, Gerlache Str.	NW								
Auster Point, Trinity Peninsula	NW					1		413	
Baily Head (incl. Rancho Point), Deception Island	SH	31	12	2,595	11	21	15	1,091	19
Bald Head, Trinity Peninsula	NE	3		326		1		98	
Barcroft Islands (so. of Watkins and Biscoe Island)	SW								
Bayard Islands (off west coast, Graham Land)	NW								
Beak Island, Pr. Gustav Channel	NE	2		107		1		57	
Bellingshausen STATION, King George Island	SH	5		256					
Bennett Islands, Hanusse Bay	SW					4		317	
Bernardo O'Higgins STATION	NW								
Biscoe Point, Anvers Is. (ASPA)	NW	1		64					
Blaicklock Island (off w. coast Graham Land)	SW					1		89	
Bongrain Pt., Pourquoi Pas Island	SW								
Booth Is.	SW	1		50		5		333	
Bradbrooke Island, Aitcho Islands	SH								
Brandy Bay, James Ross Is.	NE								
Brown Bluff, Tabarin Peninsula	NE	29	13	1,959	13	29	13	2,507	14
Bryde Island (west coast Graham land)	NW								
Buls Bay, Brabant Is.	NW								
Camara STATION, Half Moon Island,	SH								
Camp Hill	NE								
Camp Point (w. side, Graham Land)	SW								
Cape Burd, Tabarin Peninsula	NE					1		107	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		01-02			02-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Adelaide Island	SW								
Admiralty Bay, KGI	SH	1		97	1		46		
Admiralty Sound (between Seymour & Snow Hill Island)	NE								
Aitcho Islands	SH	27	11	2,396	11	44	3,566	10	
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	3		219		8	457		
Alamode Is., Terra Firma Islands	SW								
Alcock Island	NW	1		54		1	113		
Almirante Brown STATION, Paradise Bay	NW	14	17	1,249	17	62	6,556	4	
Alpha Is., Melchior Islands	NW	1		8					
Amphibolite Point, Coronation Islands	SO	1		109					
Andvord Bay	NW								
Anvers Island (nonspecific)	NW								
Apendice Is. (not Stemeck Is.)	SW					1	4		
Arago Glacier, Andvord Bay	NW								
Arctowski STATION, King George Island	SH	9		655		12	1,766	20	
Ardley Island	SH	1		173					
Argentine Islands (nonspecific)	SW					31	2,327	14	
Armstrong Reef, Renaud Is.	SW								
Artigas STATION, King George Island	SH								
Arturo Prat STATION, Greenwich Island	SH					3	204		
Astrolabe Island	NW	1		55		1	62		
Auguste Island, Gerlache Str.	NW								
Auster Point, Trinity Peninsula	NW								
Baily Head (incl. Rancho Point), Deception Island	SH	19	12	1,510	14	27	2,319	15	
Bald Head, Trinity Peninsula	NE	2		264					
Barcroft Islands (so. of Watkins and Bischoe Island)	SW								
Bayard Islands (off west coast, Graham Land)	NW								
Beak Island, Pr. Gustav Channel	NE					1	44		
Bellingshausen STATION, King George Island	SH	7		640		2	63		
Bennett Islands, Hanusse Bay	SW								
Bernardo O'Higgins STATION	NW								
Bischoe Point, Anvers Is. (ASPA)	NW								
Blaiklock Island (off w. coast Graham Land)	SW								
Bongrain Pt., Pourquoi Pas Island	SW								
Booth Is.	SW	2		176					
Bradbrooke Island, Aitcho Islands	SH								
Brandy Bay, James Ross Is.	NE	1		59					
Brown Bluff, Tabarin Peninsula	NE	28	10	2,386	12	31	2,534	12	
Bryde Island (west coast Graham land)	NW								
Buls Bay, Brabant Is.	NW								
Camara STATION, Half Moon Island,	SH								
Camp Hill	NE					1	100		
Camp Point (w. side, Graham Land)	SW								
Cape Burd, Tabarin Peninsula	NE								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-03			89-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Adelaide Island	SW	2		107	5		347		
Admiralty Bay, KGI	SH	2		143	2		143		
Admiralty Sound (between Seymour & Snow Hill Island)	NE				3		185		
Aitcho Islands	SH	151	11	12,701	298	11	23,920	12	
Akademic Vernadsky (ex-Faraday) STATION, Argentine Islands	SW	71	15	5,072	143	20	10,195	22	
Alamode Is., Terra Firma Islands	SW	1		6	1		6		
Alcock Island	NW	5		317	7		409		
Almirante Brown STATION, Paradise Bay	NW	152	10	15,619	411	8	38,000	7	
Alpha Is., Melchior Islands	NW	1		8	1		8		
Amphibolite Point, Coronation Islands	SO	1		109	1		109		
Andvord Bay	NW	1		20	1		20		
Anvers Island (nonspecific)	NW	1		6	1		6		
Apendice Is. (not Stemeck Is.)	SW	1		4	1		4		
Arago Glacier, Andvord Bay	NW				6		251		
Arctowski STATION, King George Island	SH	50	22	5,010	216	13	19,760	13	
Ardley Island	SH	1		173	13		1,796		
Argentine Islands (nonspecific)	SW	32		2,390	34		2,561		
Armstrong Reef, Renaud Is.	SW	1		6	1		6		
Artigas STATION, King George Island	SH	2		147	8		547		
Arturo Prat STATION, Greenwich Island	SH	8		669	18		1,519		
Astrolabe Island	NW	9		459	22		1,024		
Auguste Island, Gerlache Str.	NW				1		55		
Auster Point, Trinity Peninsula	NW	1		413	1		413		
Baily Head (incl. Rancho Point), Deception Island	SH	98	14	7,515	247	12	19,691	14	
Bald Head, Trinity Peninsula	NE	6		688	6		688		
Barcroft Islands (so. of Watkins and Biscoe Island)	SW				2		178		
Bayard Islands (off west coast, Graham Land)	NW				1		57		
Beak Island, Pr. Gustav Channel	NE	4		208	5		259		
Bellingshausen STATION, King George Island	SH	14		959	65		3,767		
Bennett Islands, Hanusse Bay	SW	4		317	5		373		
Bernardo O'Higgins STATION	NW				1		95		
Bischoe Point, Anvers Is. (ASPA)	NW	1		64	1		64		
Blaicklock Island (off w. coast Graham Land)	SW	1		89	2		98		
Bongrain Pt., Pourquoi Pas Island	SW				1		80		
Booth Is.	SW	8		559	8		559		
Bradbrooke Island, Aitcho Islands	SH				1		136		
Brandy Bay, James Ross Is.	NE	1		59	1		59		
Brown Bluff, Tabarin Peninsula	NE	117	13	9,386	163	17	12,528	19	
Bryde Island (west coast Graham land)	NW				1		17		
Buls Bay, Brabant Is.	NW				1		56		
Camara STATION, Half Moon Island,	SH				8		1,163		
Camp Hill	NE	1		100	1		100		
Camp Point (w. side, Graham Land)	SW				1		78		
Cape Burd, Tabarin Peninsula	NE	1		107	1		107		

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90		Visitors by Zodiac Landing	Rank (1-25)
					Zodiac Landings	Rank (1-25)		
Cape Dundas, Laurie Island, So. Orkneys	SO		ZOD	94-95				
Cape Gage, James Ross Island	NE		ZOD	94-95				
Cape Lachman, James Ross Island	NE		ZOD	98-99				
Cape Melville, King George Island	SH		ZOD	92-93				
Cape Renard, Flandres Bay	SW		ZOD	98-99				
Cape Shirreff, Livingston Is. (CEMP site)	SH		ZOD	00-01				
Cape Tuxen (w. coast Graham Land)	SW		ZOD	93-94				
Cape Valentine, Elephant Island	EI		ZOD	92-93				
Cecilia Is., Aitcho Islands	SH		ZOD	00-01				
Challenger Island (off w. coast Graham Land)	NW		ZOD	93-94				
Chang Chen (Great Wall) STATION, King George Island	SH	ST	ZOD	91-92				
Charlotte Bay (nonspecific)	NW	NS	ZOD	95-96				
			ICE					
Christiana Islands	NW		ZOD	97-98				
Cierva Cove	NW		ZOD	92-93				
Clothier Harbor, Robert Is.	SH		ZOD	02-03				
Comb Ridge, James Ross Island	NE		ZOD	96-97				
Conception Point, Coronation Is.	SO		ZOD	02-03				
Cormorant Island (vic. Anvers Island)	NW		ZOD	91-92				
Coronation Island, So. Orkneys (nonspecific)	SO	NS	ZOD	90-91				
Crystal Hill, Trinity Peninsula	NE	ASI	ZOD	95-96				
Crystal Sound, Pendelton Strait	SW		ZOD	96-97				
Curtiss Bay, (west coast Graham Land)	NW		ZOD	95-96				
Cuverville Island	NW	ASI	ZOD	89-90	8	7	883	7
			SNO					
			CAM					
Dalglish Bay, Pourquoi Pas Is.	SW		ZOD	00-01				
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	ASI	ZOD	94-95				
			CAM					
			CLI					
Danco Island, w. coast Graham Land	NW	ASI	ZOD	93-94				
			SNO					
			CAM					
Danger Islands (nonspecific)	NE	NS	ZOD	96-97				
Deception Island (nonspecific)	SH	NS	ZOD	95-96				
Desolation Is.	SH		ZOD	00-01				
Detaille Island	SW	ASI	ZOD	89-90	1		94	
			CAM					
Devil Island	NE	ASI	ZOD	95-96				
Doumer Is. (nonspecific)	NW	NS	ZOD	02-03				
Dream Is. (SSSI Arthur Harbor)	NW		ZOD	00-01				
Dundee Is. (nonspecific)	NE	NS	ZOD	99-00				
D'Urville Monument, Joinville Island	NE	ASI	ZOD	93-94				
Duthiers Pt., Graham Land	NW		ZOD	02-03				
Duthoit Point, Nelson Island	SH		ZOD	94-95				
Eagle Is.	NE	ASI	ZOD	02-03				
Elephant Island (nonspecific)	EI	NS	ZOD	94-95				
Enterprise Is. (nonspecific)	NW	NS	ZOD	99-00				
			CAM					
Errera Channel, small peak (nonspecific)	NW	NS	ZOD	95-96				
			HEL					
Ezcurra Inlet, Admiralty Bay, King George Island	SH		ZOD	93-94				
False Bay, Livingston Island	SH		ZOD	89-90	1		127	
False Island Pt., Vega Is.	NE	ASI	ZOD	02-03				
Ferraz STATION, King George Island	SH	ST ASI	ZOD	89-90	3	20	305	20
Fildes Peninsula (nonspecific)	SH	NS	ZOD	96-97				
Fish Islands (Perch Is.)	SW		ZOD	99-00				

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		90-91		91-92		91-92		91-92	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Cape Dundas, Laurie Island, So. Orkneys	SO								
Cape Gage, James Ross Island	NE								
Cape Lachman, James Ross Island	NE								
Cape Melville, King George Island	SH								
Cape Renard, Flandres Bay	SW								
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW								
Cape Valentine, Elephant Island	EI								
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW								
Chang Chen (Great Wall) STATION, King George Island	SH					1		84	
Charlotte Bay (nonspecific)	NW								
Christiana Islands	NW								
Cierva Cove	NW								
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE								
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW					1		125	
Coronation Island, So. Orkneys (nonspecific)	SO	2	22	185	22	2		370	24
Crystal Hill, Trinity Peninsula	NE								
Crystal Sound, Pendelton Strait	SW								
Curtiss Bay, (west coast Graham Land)	NW								
Cuverville Island	NW	8	8	936	9	21	4	2,565	5
Dagleish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW								
Danco Island, w. coast Graham Land	NW								
Danger Islands (nonspecific)	NE								
Deception Island (nonspecific)	SH								
Desolation Is.	SH								
Detaille Island	SW	2	20	195	20				
Devil Island	NE								
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE								
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH								
Eagle Is.	NE								
Elephant Island (nonspecific)	EI								
Enterprise Is. (nonspecific)	NW								
Errera Channel, small peak (nonspecific)	NW								
Ezcurra Inlet, Admiralty Bay, King George Island	SH								
False Bay, Livingston Island	SH								
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	1		95		6	18	660	19
Fildes Peninsula (nonspecific)	SH								
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		92-93		93-94		93-94		93-94	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Cape Dundas, Laurie Island, So. Orkneys	SO								
Cape Gage, James Ross Island	NE								
Cape Lachman, James Ross Island	NE								
Cape Melville, King George Island	SH	1		58					
Cape Renard, Flandres Bay	SW								
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW					1		16	
Cape Valentine, Elephant Island	EI	1		28		1		118	
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW					1		27	
Chang Chen (Great Wall) STATION, King George Island	SH	1		62					
Charlotte Bay (nonspecific)	NW								
Christiana Islands	NW								
Cierva Cove	NW	1		38					
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE								
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW								
Coronation Island, So. Orkneys (nonspecific)	SO					1		176	
Crystal Hill, Trinity Peninsula	NE								
Crystal Sound, Pendelton Strait	SW								
Curtiss Bay, (west coast Graham Land)	NW								
Cuverville Island	NW	25	1	1,589	6	27	8	2,174	10
Dagleish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW								
Danco Island, w. coast Graham Land	NW					3		73	
Danger Islands (nonspecific)	NE								
Deception Island (nonspecific)	SH								
Desolation Is.	SH								
Detaille Island	SW	3		278	25				
Devil Island	NE								
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE					1		33	
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH								
Eagle Is.	NE								
Elephant Island (nonspecific)	EI								
Enterprise Is. (nonspecific)	NW								
Errera Channel, small peak (nonspecific)	NW								
Ezcurra Inlet, Admiralty Bay, King George Island	SH					1		36	
False Bay, Livingston Island	SH								
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	2		187		12	14	1,135	15
Fildes Peninsula (nonspecific)	SH								
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		94-95		95-96		Visitors by Zodiac Landing	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Zodiac Landings	Rank (1-25)				
Cape Dundas, Laurie Island, So. Orkneys	SO	1				138			
Cape Gage, James Ross Island	NE	1		86			1	72	
Cape Lachman, James Ross Island	NE								
Cape Melville, King George Island	SH								
Cape Renard, Flandres Bay	SW								
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW	1		30					
Cape Valentine, Elephant Island	EI								
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW								
Chang Chen (Great Wall) STATION, King George Island	SH						1	60	
Charlotte Bay (nonspecific)	NW						4	349	
Christiana Islands	NW								
Cierva Cove	NW								
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE								
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW								
Coronation Island, So. Orkneys (nonspecific)	SO	1		108					
Crystal Hill, Trinity Peninsula	NE						4	352	
Crystal Sound, Pendelton Strait	SW								
Curtiss Bay, (west coast Graham Land)	NW						2	72	
Cuverville Island	NW	47	2	3,367	4		59	2	4,343
Dalglish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	3		321			6		597
Danco Island, w. coast Graham Land	NW	4		276			13	21	560
Danger Islands (nonspecific)	NE								
Deception Island (nonspecific)	SH						9	24	557
Desolation Is.	SH								
Detaille Island	SW	2		236					
Devil Island	NE						4		352
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE								
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH	1		135			1		109
Eagle Is.	NE								
Elephant Island (nonspecific)	EI	3		259					
Enterprise Is. (nonspecific)	NW								
Errera Channel, small peak (nonspecific)	NW						1		15
Ezcurra Inlet, Admiralty Bay, King George Island	SH								
False Bay, Livingston Island	SH								
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	10	16	930	16		4		321
Fildes Peninsula (nonspecific)	SH								
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		96-97		97-98		97-98		97-98	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Cape Dundas, Laurie Island, So. Orkneys	SO								
Cape Gage, James Ross Island	NE								
Cape Lachman, James Ross Island	NE								
Cape Melville, King George Island	SH								
Cape Renard, Flandres Bay	SW								
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW								
Cape Valentine, Elephant Island	EI								
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW								
Chang Chen (Great Wall) STATION, King George Island	SH								
Charlotte Bay (nonspecific)	NW	1		92					
Christiana Islands	NW					1		54	
Cierva Cove	NW	3		272		2		176	
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE	1		31					
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW								
Coronation Island, So. Orkneys (nonspecific)	SO								
Crystal Hill, Trinity Peninsula	NE	2		165					
Crystal Sound, Pendelton Strait	SW	2		290					
Curtiss Bay, (west coast Graham Land)	NW	2		65		1		57	
Cuverville Island	NW	56	2	3,714	1	53	3	4,143	4
Dalglish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	1		92		7	28	477	
Danco Island, w. coast Graham Land	NW	5		314		6		380	
Danger Islands (nonspecific)	NE	7	27	240					
Deception Island (nonspecific)	SH	9	21	634	24	4		236	
Desolation Is.	SH								
Detaille Island	SW	1		108		4		413	
Devil Island	NE	9	22	657	23	1		2	
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE					1		74	
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH								
Eagle Is.	NE								
Elephant Island (nonspecific)	EI	1		50		1		81	
Enterprise Is. (nonspecific)	NW								
Errera Channel, small peak (nonspecific)	NW								
Ezcurra Inlet, Admiralty Bay, King George Island	SH								
False Bay, Livingston Island	SH								
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	3		183		5		693	24
Fildes Peninsula (nonspecific)	SH	1		85					
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		98-99			89-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Cape Dundas, Laurie Island, So. Orkneys	SO					1		138	
Cape Gage, James Ross Island	NE					2		158	
Cape Lachman, James Ross Island	NE	1		95		1		95	
Cape Melville, King George Island	SH					1		58	
Cape Renard, Flandres Bay	SW	1		70		1		70	
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW					2		46	
Cape Valentine, Elephant Island	EI					2		146	
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW					1		27	
Chang Chen (Great Wall) STATION, King George Island	SH					3		206	
Charlotte Bay (nonspecific)	NW	1		164		6		605	
Christiana Islands	NW	1		51		2		105	
Cierva Cove	NW	2		124		8		610	
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE					1		31	
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW					1		125	
Coronation Island, So. Orkneys (nonspecific)	SO	3		199		9		1,038	
Crystal Hill, Trinity Peninsula	NE	1		94		7		611	
Crystal Sound, Pendelton Strait	SW					2		290	
Curtiss Bay, (west coast Graham Land)	NW	1		56		6		250	
Cuverville Island	NW	55	3	4,087	4	359	2	27,801	4
Dalglish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	8		553		25		2,040	
Danco Island, w. coast Graham Land	NW	6		343		37		1,946	
Danger Islands (nonspecific)	NE					7		240	
Deception Island (nonspecific)	SH	11	24	801	25	33		2,228	
Desolation Is.	SH								
Detaille Island	SW	3		244		16		1,568	
Devil Island	NE	3		285		17		1,296	
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE					2		107	
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH					2		244	
Eagle Is.	NE								
Elephant Island (nonspecific)	EI					5		390	
Enterprise Is. (nonspecific)	NW								
Errera Channel, small peak (nonspecific)	NW					1		15	
Ezcurra Inlet, Admiralty Bay, King George Island	SH					1		36	
False Bay, Livingston Island	SH					1		127	
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	4		381		50		4,890	25
Fildes Peninsula (nonspecific)	SH					1		85	
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		89-94			94-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Cape Dundas, Laurie Island, So. Orkneys	SO					1		138	
Cape Gage, James Ross Island	NE					2		158	
Cape Lachman, James Ross Island	NE					1		95	
Cape Melville, King George Island	SH	1		58					
Cape Renard, Flandres Bay	SW					1		70	
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW	1		16		1		30	
Cape Valentine, Elephant Island	EI	2		146					
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW	1		27					
Chang Chen (Great Wall) STATION, King George Island	SH	2		146		1		60	
Charlotte Bay (nonspecific)	NW					6		605	
Christiana Islands	NW					2		105	
Cierva Cove	NW	1		38		7		572	
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE					1		31	
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW	1		125					
Coronation Island, So. Orkneys (nonspecific)	SO	5		731		4		307	
Crystal Hill, Trinity Peninsula	NE					7		611	
Crystal Sound, Pendelton Strait	SW					2		290	
Curtiss Bay, (west coast Graham Land)	NW					6		250	
Cuverville Island	NW	89	4	8,147	7	270	2	19,654	3
Dalglish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW					25		2,040	
Danco Island, w. coast Graham Land	NW	3		73		34		1,873	
Danger Islands (nonspecific)	NE					7		240	
Deception Island (nonspecific)	SH					33		2,228	
Desolation Is.	SH								
Detaille Island	SW	6		567		10		1,001	
Devil Island	NE					17		1,296	
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE	1		33		1		74	
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH					2		244	
Eagle Is.	NE								
Elephant Island (nonspecific)	EI					5		390	
Enterprise Is. (nonspecific)	NW								
Errera Channel, small peak (nonspecific)	NW					1		15	
Ezcurra Inlet, Admiralty Bay, King George Island	SH	1		36					
False Bay, Livingston Island	SH	1		127					
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	24	17	2,382	19	26		2,508	
Fildes Peninsula (nonspecific)	SH					1		85	
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-00			00-01			Visitors by Zodiac Landing	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Cape Dundas, Laurie Island, So. Orkneys	SO	1		104					
Cape Gage, James Ross Island	NE								
Cape Lachman, James Ross Island	NE								
Cape Melville, King George Island	SH								
Cape Renard, Flandres Bay	SW	1		28					
Cape Shirreff, Livingston Is. (CEMP site)	SH					1		2	
Cape Tuxen (w. coast Graham Land)	SW					1		51	
Cape Valentine, Elephant Island	EI								
Cecilia Is., Aitcho Islands	SH					1		2	
Challenger Island (off w. coast Graham Land)	NW								
Chang Chen (Great Wall) STATION, King George Island	SH	1		90					
Charlotte Bay (nonspecific)	NW	1		41					
Christiana Islands	NW								
Cierva Cove	NW	2		183		1		125	
Clothier Harbor, Robert Is.	SH								
Comb Ridge, James Ross Island	NE								
Conception Point, Coronation Is.	SO								
Cormorant Island (vic. Anvers Island)	NW								
Coronation Island, So. Orkneys (nonspecific)	SO								
Crystal Hill, Trinity Peninsula	NE	6		526					
Crystal Sound, Pendelton Strait	SW	1		128					
Curtiss Bay, (west coast Graham Land)	NW	2		109					
Cuverville Island	NW	63	3	4,908	4	56	4	5,615	4
Dalglish Bay, Pourquoi Pas Is.	SW					2		149	
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	13	23	1,247	22	16	18	805	25
Danco Island, w. coast Graham Land	NW	14	20	993		4		120	
Danger Islands (nonspecific)	NE								
Deception Island (nonspecific)	SH	1		117		6		613	
Desolation Is.	SH					1		55	
Detaille Island	SW	1		5		5		478	
Devil Island	NE	14	21	1,270	21	2		195	
Doumer Is. (nonspecific)	NW								
Dream Is. (SSSI Arthur Harbor)	NW					1		56	
Dundee Is. (nonspecific)	NE	1		42					
D'Urville Monument, Joinville Island	NE								
Duthiers Pt., Graham Land	NW								
Duthoit Point, Nelson Island	SH								
Eagle Is.	NE								
Elephant Island (nonspecific)	EI								
Enterprise Is. (nonspecific)	NW	4		186		1		5	
Errera Channel, small peak (nonspecific)	NW								
Ezcurra Inlet, Admiralty Bay, King George Island	SH	1		39					
False Bay, Livingston Island	SH								
False Island Pt., Vega Is.	NE								
Ferraz STATION, King George Island	SH	5		387		1		27	
Fildes Peninsula (nonspecific)	SH								
Fish Islands (Perch Is.)	SW	1		34					

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		01-02		02-03		02-03		02-03	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Cape Dundas, Laurie Island, So. Orkneys	SO								
Cape Gage, James Ross Island	NE								
Cape Lachman, James Ross Island	NE								
Cape Melville, King George Island	SH								
Cape Renard, Flandres Bay	SW								
Cape Shirreff, Livingston Is. (CEMP site)	SH								
Cape Tuxen (w. coast Graham Land)	SW								
Cape Valentine, Elephant Island	EI								
Cecilia Is., Aitcho Islands	SH								
Challenger Island (off w. coast Graham Land)	NW								
Chang Chen (Great Wall) STATION, King George Island	SH	1		162					
Charlotte Bay (nonspecific)	NW	1		123					
Christiana Islands	NW								
Cierva Cove	NW	2		202					
Clothier Harbor, Robert Is.	SH					1		6	
Comb Ridge, James Ross Island	NE								
Conception Point, Coronation Is.	SO					1		111	
Cormorant Island (vic. Anvers Island)	NW								
Coronation Island, So. Orkneys (nonspecific)	SO					1		146	
Crystal Hill, Trinity Peninsula	NE					1		53	
Crystal Sound, Pendelton Strait	SW								
Curtiss Bay, (west coast Graham Land)	NW					2		177	
Cuverville Island	NW	53	3	4,115	7	54	7	4,749	8
Dalglish Bay, Pourquoi Pas Is.	SW								
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	10	27	737		19	18	1,884	19
Danco Island, w. coast Graham Land	NW	13	18	996	22	13	24	806	
Danger Islands (nonspecific)	NE					1		54	
Deception Island (nonspecific)	SH					1		41	
Desolation Is.	SH								
Detaille Island	SW					7		858	
Devil Island	NE	12	22	1,249	18	12	27	954	
Doumer Is. (nonspecific)	NW					2		9	
Dream Is. (SSSI Arthur Harbor)	NW								
Dundee Is. (nonspecific)	NE								
D'Urville Monument, Joinville Island	NE								
Duthiers Pt., Graham Land	NW					1		46	
Duthoit Point, Nelson Island	SH								
Eagle Is.	NE					1		104	
Elephant Island (nonspecific)	EI	1		39					
Enterprise Is. (nonspecific)	NW	5		282		6		251	
Errera Channel, small peak (nonspecific)	NW								
Ezcurra Inlet, Admiralty Bay, King George Island	SH								
False Bay, Livingston Island	SH								
False Island Pt., Vega Is.	NE					1		98	
Ferraz STATION, King George Island	SH	1		102		3		228	
Fildes Peninsula (nonspecific)	SH	1		276		3		193	
Fish Islands (Perch Is.)	SW								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-03			89-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Cape Dundas, Laurie Island, So. Orkneys	SO	1		104		2		242	
Cape Gage, James Ross Island	NE					2		158	
Cape Lachman, James Ross Island	NE					1		95	
Cape Melville, King George Island	SH					1		58	
Cape Renard, Flandres Bay	SW	1		28		2		98	
Cape Shirreff, Livingston Is. (CEMP site)	SH	1		2		1		2	
Cape Tuxen (w. coast Graham Land)	SW	1		51		3		97	
Cape Valentine, Elephant Island	EI					2		146	
Cecilia Is., Aitcho Islands	SH	1		2		1		2	
Challenger Island (off w. coast Graham Land)	NW					1		27	
Chang Chen (Great Wall) STATION, King George Island	SH	2		252		5		458	
Charlotte Bay (nonspecific)	NW	2		164		8		769	
Christiana Islands	NW					2		105	
Cierva Cove	NW	5		510		13		1,120	
Clothier Harbor, Robert Is.	SH	1		6		1		6	
Comb Ridge, James Ross Island	NE					1		31	
Conception Point, Coronation Is.	SO	1		111		1		111	
Cormorant Island (vic. Anvers Island)	NW					1		125	
Coronation Island, So. Orkneys (nonspecific)	SO	1		146		10		1,184	
Crystal Hill, Trinity Peninsula	NE	7		579		14		1,190	
Crystal Sound, Pendelton Strait	SW	1		128		3		418	
Curtiss Bay, (west coast Graham Land)	NW	4		286		10		536	
Cuverville Island	NW	226	4	19,387	3	585	3	47,188	3
Dalglish Bay, Pourquoi Pas Is.	SW	2		149		2		149	
Damoy Point (incl. Dorian Bay), Wiencke Island	NW	58	19	4,673	19	83		6,713	
Danco Island, w. coast Graham Land	NW	44	25	2,915		81		4,861	
Danger Islands (nonspecific)	NE	1		54		8		294	
Deception Island (nonspecific)	SH	8		771		41		2,999	
Desolation Is.	SH	1		55		1		55	
Detaille Island	SW	13		1,341		29		2,909	
Devil Island	NE	40		3,668	25	57		4,964	
Doumer Is. (nonspecific)	NW	2		9		2		9	
Dream Is. (SSSI Arthur Harbor)	NW	1		56		1		56	
Dundee Is. (nonspecific)	NE	1		42		1		42	
D'Urville Monument, Joinville Island	NE					2		107	
Duthiers Pt., Graham Land	NW	1		46		1		46	
Duthoit Point, Nelson Island	SH					2		244	
Eagle Is.	NE	1		104		1		104	
Elephant Island (nonspecific)	EI	1		39		6		429	
Enterprise Is. (nonspecific)	NW	16		724		16		724	
Errera Channel, small peak (nonspecific)	NW					1		15	
Ezcurra Inlet, Admiralty Bay, King George Island	SH	1		39		2		75	
False Bay, Livingston Island	SH					1		127	
False Island Pt., Vega Is.	NE	1		98		1		98	
Ferraz STATION, King George Island	SH	10		744		60		5,634	
Fildes Peninsula (nonspecific)	SH	4		469		5		554	
Fish Islands (Perch Is.)	SW	1		34		1		34	

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90		Visitors by Zodiac Landing	Rank (1-25)
					Zodiac Landings	Rank (1-25)		
Fish Islands, west coast Graham Land (nonspecific)	SW	ASI NS	ZOD	93-94				
Fort Point, Greenwich Is	SH	ASI	ZOD	98-99				
Foyu Harbor	NW	ASI	ZOD	92-93				
Frei STATION/Marsh Base, King George Island	SH	ST	ZOD	89-90	6	13	621	12
Fridtjof Sound, Tabarin Peninsula	NE		HEL	00-01				
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH		ZOD	91-92				
Gabriel de Dastilla STATION, Deception Island	SH	ST	ZOD	95-96				
Galindez Is., Argentine Islands	SW		ZOD	00-01				
Gallows Pt., Gamma Is., Melchior Islands	NW		ZOD	00-01				
Gaston Island (near tip, Reclus peninsula)	NW		ZOD	96-97				
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	ASI	CAM	92-93				
Gibbon Bay, Coronation Is.	SO	ASI	ZOD	97-98				
Gibbs Island (nonspecific)	EI	NS	ZOD	97-98				
Gin Cove, James Ross Island	NE		ZOD	95-96				
Gosling Islands, So. Orkneys	SO		ZOD	93-94				
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW		ZOD	95-96				
Gourdin Island	NW	ASI	ZOD	97-98				
Grandier Channel (nonspecific)	SW	NS	ZOD	01-02				
Greenwich Is. (nonspecific)	SH	NS	ZOD	02-03				
Half Moon Island	SH	ST	ZOD	89-90	10	4	1,191	4
		ASI	SNO					
Hannah Point, Livingston Island	SH	ASI	ZOD	89-90	3	19	419	18
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH	NS	ZOD	00-01				
Hanusse Bay	SW		ZOD	90-91				
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW		ZOD	94-95				
Herofina Island	NE	ASI	ZOD	96-97				
Heywood Island (vic. Robert Island)	SH		ZOD	92-93				
Holluschickie Bay, James Ross Island	NE		ZOD	96-97				
Hope Bay (Esperanza STATION)	NE	ST ASI	ZOD	89-90	1		145	
Hope Bay (Uruguayan Hut/STATION)	NE	ST	ZOD	97-98				
Horseshoe Island	SW		ZOD	97-98				
Hovgaard Island	SW		ZOD	91-92				
			CAM					
Huemul Is.	NW		ZOD	00-01				
Hydrurga Rocks	NW	ASI	ZOD	93-94				
			SNO					
Intercurrence Island (Gennady Cove), Christiana Islands	NW		ZOD	94-95				
Inverleith Harbor, Anvers Is.	NW		ZOD	99-00				
Jabet Peak, Wiencke Is.	NW		CLI	00-01				
James Ross Island (nonspecific)	NE	NS	ZOD	98-99				
Jansenn Peak, Wiencke Is.	NW		ZOD	02-03				
Jones Ice Shelf, Graham Land	SW		ZOD	02-03				
Joubin Islands	NW		ZOD	00-01				
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	ASI	ZOD	89-90	7	8	796	8
			SNO					
			CAM					
Jubany STATION, King George Island	SH	ST ASI	SNO	89-90	1		120	
Killermet Cove, Bryde Is.	NW		ZOD	02-03				
King George Island (nonspecific)	SH	NS	ZOD	95-96				

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		90-91		91-92		91-92		91-92	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Fish Islands, west coast Graham Land (nonspecific)	SW								
Fort Point, Greenwich Is	SH								
Foyu Harbor	NW								
Frei STATION/Marsh Base, King George Island	SH	4	15	596	15	8	16	1,162	15
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH					1		8	
Gabriel de Dastilla STATION, Deception Island	SH								
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW								
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW								
Gibbon Bay, Coronation Is.	SO								
Gibbs Island (nonspecific)	EI								
Gin Cove, James Ross Island	NE								
Gosling Islands, So. Orkneys	SO								
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW								
Gourdin Island	NW								
Grandidier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	9	6	1,011	8	25	2	2,984	1
Hannah Point, Livingston Island	SH	2	21	192	21	17	7	1,632	9
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW	2	24	148	24				
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW								
Herofna Island	NE								
Heywood Island (vic. Robert Island)	SH								
Holluschickie Bay, James Ross Island	NE								
Hope Bay (Esperanza STATION)	NE	3	18	1,130	5	9	14	1,278	12
Hope Bay (Uruguayan Hut/STATION)	NE								
Horseshoe Island	SW								
Hovgaard Island	SW					1		328	25
Huemul Is.	NW								
Hydrurga Rocks	NW								
Intercurrence Island (Gennady Cove), Christiana Islands	NW								
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW								
James Ross Island (nonspecific)	NE								
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	7	10	1,067	7	19	5	2,615	4
Jubany STATION, King George Island	SH	1		107		3	23	307	
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH								

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE		92-93			93-94			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Fish Islands, west coast Graham Land (nonspecific)	SW				2		229		
Fort Point, Greenwich Is	SH								
Foyn Harbor	NW	1		66	3		133		
Frei STATION/Marsh Base, King George Island	SH	2		333	1	22	90		
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH								
Gabriel de Dastilla STATION, Deception Island	SH								
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW								
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	5	23	186	6	23	267		
Gibbon Bay, Coronation Is.	SO								
Gibbs Island (nonspecific)	EI								
Gin Cove, James Ross Island	NE								
Gosling Islands, So. Orkneys	SO				1		139		
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW								
Gourdin Island	NW								
Grandidier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	14	9	1,585	7	17	11	2,961	7
Hannah Point, Livingston Island	SH	23	3	1,542	8	29	7	2,740	9
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW								
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW								
Herofna Island	NE								
Heywood Island (vic. Robert Island)	SH	1		102					
Holluschickie Bay, James Ross Island	NE								
Hope Bay (Esperanza STATION)	NE	3		209	17	12		1,801	11
Hope Bay (Uruguayan Hut/STATION)	NE								
Horseshoe Island	SW								
Hovgaard Island	SW	1		391	20	1		475	22
Huemul Is.	NW								
Hydrurga Rocks	NW				3			165	
Intercurrence Island (Gennady Cove), Christiana Islands	NW								
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW								
James Ross Island (nonspecific)	NE								
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	22	4	2,139	1	30	4	4,274	1
Jubany STATION, King George Island	SH	4	24	305	23	6	20	869	19
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		94-95		Visitors by		95-96		Visitors by	
		Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)
Fish Islands, west coast Graham Land (nonspecific)	SW					1		113	
Fort Point, Greenwich Is	SH								
Foyn Harbor	NW								
Frei STATION/Marsh Base, King George Island	SH	9	21	766	18	6		542	
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH								
Gabriel de Dastilla STATION, Deception Island	SH					1		42	
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW								
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	10	17	711	19	9	23	546	25
Gibbon Bay, Coronation Is.	SO								
Gibbs Island (nonspecific)	EI								
Gin Cove, James Ross Island	NE					1		67	
Gosling Islands, So. Orkneys	SO								
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW					1		44	
Gourdin Island	NW								
Grandidier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	38	7	3,017	5	49	3	5,221	1
Hannah Point, Livingston Island	SH	46	3	4,010	2	37	7	3,048	7
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW								
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW	1		19					
Herofna Island	NE								
Heywood Island (vic. Robert Island)	SH								
Holluschickie Bay, James Ross Island	NE								
Hope Bay (Esperanza STATION)	NE	11	15	907	17	17	18	1,476	15
Hope Bay (Uruguayan Hut/STATION)	NE								
Horseshoe Island	SW								
Hovgaard Island	SW	2		172		2		138	
Huemul Is.	NW								
Hydrurga Rocks	NW	2		72		1		83	
Intercurrence Island (Gennady Cove), Christiana Islands	NW	1		34					
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW								
James Ross Island (nonspecific)	NE								
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	27	11	1,769	10	42	5	3,851	4
Jubany STATION, King George Island	SH	3		403					
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH					2		179	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		96-97		97-98		96-97		97-98	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Fish Islands, west coast Graham Land (nonspecific)	SW								
Fort Point, Greenwich Is	SH								
Foyn Harbor	NW								
Frei STATION/Marsh Base, King George Island	SH	5		335					
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH								
Gabriel de Dastilla STATION, Deception Island	SH								
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW	1		40					
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	12	18	673	21	6		655	25
Gibbon Bay, Coronation Is.	SO					1		115	
Gibbs Island (nonspecific)	EI					1		131	
Gin Cove, James Ross Island	NE	1		94					
Gosling Islands, So. Orkneys	SO	1		96					
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW	3		262		6		467	
Gourdin Island	NW					2		207	
Grandidier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	35	9	2,258	11	33	7	4,382	3
Hannah Point, Livingston Island	SH	46	4	3,480	2	39	5	3,399	8
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW								
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW								
Herofna Island	NE	1		90					
Heywood Island (vic. Robert Island)	SH								
Holluschickie Bay, James Ross Island	NE	1		91					
Hope Bay (Esperanza STATION)	NE	7	24	710	20	10	20	1,210	16
Hope Bay (Uruguayan Hut/STATION)	NE					1		105	
Horseshoe Island	SW					1		55	
Hovgaard Island	SW	2		203		1		439	
Huemul Is.	NW								
Hydrurga Rocks	NW	7	26	461		4		199	
Intercurrence Island (Gennady Cove), Christiana Islands	NW								
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW								
James Ross Island (nonspecific)	NE								
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	58	1	3,212	3	63	1	6,879	1
Jubany STATION, King George Island	SH					3		333	
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH	1		55					

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		98-99			89-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Fish Islands, west coast Graham Land (nonspecific)	SW	1		95		4		437	
Fort Point, Greenwich Is	SH	2		185		2		185	
Foyn Harbor	NW					4		199	
Frei STATION/Marsh Base, King George Island	SH					41		4,445	
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH					1		8	
Gabriel de Dastilla STATION, Deception Island	SH	1		80		2		122	
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW					1		40	
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	2		135		50		3,173	
Gibbon Bay, Coronation Is.	SO					1		115	
Gibbs Island (nonspecific)	EI	2		270		3		401	
Gin Cove, James Ross Island	NE					2		161	
Gosling Islands, So. Orkneys	SO					2		235	
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW	15	17	1,302	17	25		2,075	
Gourdin Island	NW	4		321		6		528	
Grandier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	33	9	3,931	6	263	7	28,541	3
Hannah Point, Livingston Island	SH	48	5	3,982	5	290	5	24,444	6
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW					2		148	
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW					1		19	
Herofina Island	NE	1		37		2		127	
Heywood Island (vic. Robert Island)	SH					1		102	
Holluschickie Bay, James Ross Island	NE					1		91	
Hope Bay (Esperanza STATION)	NE	9	25	1,031	21	87	19	9,897	15
Hope Bay (Uruguayan Hut/STATION)	NE					1		105	
Horseshoe Island	SW					1		55	
Hovgaard Island	SW	1		7		11		2,153	
Huemul Is.	NW								
Hydrurga Rocks	NW	8		553		25		1,533	
Intercurrence Island (Gennady Cove), Christiana Islands	NW					1		34	
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW								
James Ross Island (nonspecific)	NE	2		181		2		181	
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	75	1	7,587	1	350	3	34,189	2
Jubany STATION, King George Island	SH	6		232		27		2,676	
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH					3		234	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		89-94			94-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing		
Fish Islands, west coast Graham Land (nonspecific)	SW	2		229		2		208	
Fort Point, Greenwich Is	SH					2		185	
Foyu Harbor	NW	4		199					
Frei STATION/Marsh Base, King George Island	SH	21	20	2,802	15	20		1,643	
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH	1		8					
Gabriel de Dastilla STATION, Deception Island	SH					2		122	
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW					1		40	
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	11		453		39	24	2,720	25
Gibbon Bay, Coronation Is.	SO					1		115	
Gibbs Island (nonspecific)	EI					3		401	
Gin Cove, James Ross Island	NE					2		161	
Gosling Islands, So. Orkneys	SO	1		139		1		96	
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW					25		2,075	
Gourdin Island	NW					6		528	
Grandidier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	75	7	9,732	5	188	7	18,809	4
Hannah Point, Livingston Island	SH	74	8	6,525	10	216	4	17,919	5
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW	2		148					
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW					1		19	
Herofina Island	NE					2		127	
Heywood Island (vic. Robert Island)	SH	1		102					
Holluschickie Bay, James Ross Island	NE					1		91	
Hope Bay (Esperanza STATION)	NE	33	14	4,563	13	54	19	5,334	17
Hope Bay (Uruguayan Hut/STATION)	NE					1		105	
Horseshoe Island	SW					1		55	
Hovgaard Island	SW	3		1,194		8		959	
Huemul Is.	NW								
Hydrurga Rocks	NW	3		165		22		1,368	
Intercurrence Island (Gennady Cove), Christiana Islands	NW					1		34	
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW								
James Ross Island (nonspecific)	NE					2		181	
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	85	5	10,891	2	265	3	23,298	2
Jubany STATION, King George Island	SH	15	25	1,708	22	12		968	
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH					3		234	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-00			00-01			Visitors by Zodiac Landing	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Visitors by Zodiac Landing
Fish Islands, west coast Graham Land (nonspecific)	SW					2		86	
Fort Point, Greenwich Is	SH	2		131					
Foyn Harbor	NW					3		80	
Frei STATION/Marsh Base, King George Island	SH	3		290		1		6	
Fridtjof Sound, Tabarin Peninsula	NE					2		254	
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH								
Gabriel de Dastilla STATION, Deception Island	SH								
Galindez Is., Argentine Islands	SW					3		17	
Gallows Pt., Gamma Is., Melchior Islands	NW					1		4	
Gaston Island (near tip, Reclus peninsula)	NW								
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	3		149		4		170	
Gibbon Bay, Coronation Is.	SO								
Gibbs Island (nonspecific)	EI								
Gin Cove, James Ross Island	NE								
Gosling Islands, So. Orkneys	SO								
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW	27	14	2,246	12	29	12	2,575	13
Gourdin Island	NW	4		252		4		197	
Grandier Channel (nonspecific)	SW								
Greenwich Is. (nonspecific)	SH								
Half Moon Island	SH	46	9	1,454	19	33	11	5,711	3
Hannah Point, Livingston Island	SH	54	6	1,691	16	53	5	4,752	6
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH					1		106	
Hanusse Bay	SW								
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW								
Herofna Island	NE	2		85					
Heywood Island (vic. Robert Island)	SH					1		5	
Holluschickie Bay, James Ross Island	NE					1		94	
Hope Bay (Esperanza STATION)	NE	12	24	1,138	24	14	20	1,404	17
Hope Bay (Uruguayan Hut/STATION)	NE								
Horseshoe Island	SW	1		113		1		131	
Hovgaard Island	SW					2		97	
Huemul Is.	NW					10		448	
Hydrurga Rocks	NW	9		501					
Intercurrence Island (Gennady Cove), Christiana Islands	NW	2		89					
Inverleith Harbor, Anvers Is.	NW	1		34					
Jabet Peak, Wiencke Is.	NW					1		7	
James Ross Island (nonspecific)	NE								
Jansenn Peak, Wiencke Is.	NW								
Jones Ice Shelf, Graham Land	SW								
Joubin Islands	NW					1		7	
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	93	1	9,323	1	94	1	8,675	1
Jubany STATION, King George Island	SH	3		268		1		132	
Killermet Cove, Bryde Is.	NW								
King George Island (nonspecific)	SH								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		01-02			02-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Fish Islands, west coast Graham Land (nonspecific)	SW					1		7	
Fort Point, Greenwich Is	SH								
Foyn Harbor	NW	3		159		1		46	
Frei STATION/Marsh Base, King George Island	SH	2		289		3		500	
Fridtjof Sound, Tabarin Peninsula	NE								
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH								
Gabriel de Dastilla STATION, Deception Island	SH	1		101		1		12	
Galindez Is., Argentine Islands	SW								
Gallows Pt., Gamma Is., Melchior Islands	NW								
Gaston Island (near tip, Reclus peninsula)	NW								
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	1		15		2		273	
Gibbon Bay, Coronation Is.	SO					1		108	
Gibbs Island (nonspecific)	EI	1		69					
Gin Cove, James Ross Island	NE								
Gosling Islands, So. Orkneys	SO								
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW	56	2	4,412	4	79	2	6,928	2
Gourdin Island	NW	2		58		7		638	
Grandier Channel (nonspecific)	SW	1		60					
Greenwich Is. (nonspecific)	SH					1		6	
Half Moon Island	SH	41	7	5,317	2	38	11	5,413	7
Hannah Point, Livingston Island	SH	37	9	2,927	10	46	8	4,096	9
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH								
Hanusse Bay	SW								
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW								
Herofna Island	NE								
Heywood Island (vic. Robert Island)	SH					1		8	
Holluschickie Bay, James Ross Island	NE								
Hope Bay (Esperanza STATION)	NE	12	20	1,323	16	12	26	1,508	21
Hope Bay (Uruguayan Hut/STATION)	NE								
Horseshoe Island	SW								
Hovgaard Island	SW					1		69	
Huemul Is.	NW								
Hydrurga Rocks	NW	8		451		5		381	
Intercurrence Island (Gennady Cove), Christiana Islands	NW								
Inverleith Harbor, Anvers Is.	NW								
Jabet Peak, Wiencke Is.	NW	13	19	861	25				
James Ross Island (nonspecific)	NE								
Jansenn Peak, Wiencke Is.	NW					2		10	
Jones Ice Shelf, Graham Land	SW					1		7	
Joubin Islands	NW								
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	43	6	4,238	5	63	5	6,575	3
Jubany STATION, King George Island	SH	1		96		6		363	
Killermet Cove, Bryde Is.	NW					1		6	
King George Island (nonspecific)	SH								

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-03			89-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Fish Islands, west coast Graham Land (nonspecific)	SW	3		93	7		530		
Fort Point, Greenwich Is	SH	2		131	4		316		
Foyen Harbor	NW	7		285	11		484		
Frei STATION/Marsh Base, King George Island	SH	9		1,085	50		5,530		
Fridtjof Sound, Tabarin Peninsula	NE	2		254	2		254		
Fumarole Bay (Primero de Mayo Bay), Deception Island	SH				1		8		
Gabriel de Dastilla STATION, Deception Island	SH	2		113	4		235		
Galindez Is., Argentine Islands	SW	3		17	3		17		
Gallows Pt., Gamma Is., Melchior Islands	NW	1		4	1		4		
Gaston Island (near tip, Reclus peninsula)	NW				1		40		
Georges Point, Rongé Island (incl. landings listed for Rongé Island only)	NW	10		607	60		3,780		
Gibbon Bay, Coronation Is.	SO	1		108	2		223		
Gibbs Island (nonspecific)	EI	1		69	4		470		
Gin Cove, James Ross Island	NE				2		161		
Gosling Islands, So. Orkneys	SO				2		235		
Goudier Island (restored UK Hut), off Jougla Pt., Port Lockroy (does NOT include LDGs listed for "Port Lockroy" and "Jougla Point")	NW	191	6	16,161	7	216	14	18,236	15
Gourdin Island	NW	17		1,145	23		1,673		
Grandier Channel (nonspecific)	SW	1		60	1		60		
Greenwich Is. (nonspecific)	SH	1		6	1		6		
Half Moon Island	SH	158	9	17,895	5	421	7	46,436	4
Hannah Point, Livingston Island	SH	190	7	13,466	10	480	5	37,910	8
Hannah Pt. Vicinity — "Walker Bay" (nonspecific)	SH	1		106	1		106		
Hanusse Bay	SW				2		148		
Heim Glacier, s.e. Arrowsmith Pen. (w. coast Graham Land)	SW				1		19		
Herofina Island	NE	2		85	4		212		
Heywood Island (vic. Robert Island)	SH	2		13	3		115		
Holluschickie Bay, James Ross Island	NE	1		94	2		185		
Hope Bay (Esperanza STATION)	NE	50	23	5,373	16	137	22	15,270	16
Hope Bay (Uruguayan Hut/STATION)	NE				1		105		
Horseshoe Island	SW	2		244	3		299		
Hovgaard Island	SW	3		166	14		2,319		
Huemul Is.	NW	10		448	10		448		
Hydrurga Rocks	NW	22		1,333	47		2,866		
Intercurrence Island (Gennady Cove), Christiana Islands	NW	2		89	3		123		
Inverleith Harbor, Anvers Is.	NW	1		34	1		34		
Jabet Peak, Wiencke Is.	NW	14		868	14		868		
James Ross Island (nonspecific)	NE				2		181		
Jansenn Peak, Wiencke Is.	NW	2		10	2		10		
Jones Ice Shelf, Graham Land	SW	1		7	1		7		
Joubin Islands	NW	1		7	1		7		
Jougla Point, Port Lockroy, Wiencke Island (includes Idgs listed for "Port Lockroy" and "Jougla Point")	NW	293	2	28,811	2	643	2	63,000	2
Jubany STATION, King George Island	SH	11		859	38		3,535		
Killermet Cove, Bryde Is.	NW	1		6	1		6		
King George Island (nonspecific)	SH				3		234		

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90		Visitors by Zodiac Landing	Rank (1-25)
					Zodiac Landings	Rank (1-25)		
King Sejong STATION, Maxwell Bay, King George Island	SH	ST	ZOD	91-92				
Kinnes Cove, Suspiros Bay, Joinville Island	NW		ZOD	93-94				
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW		ZOD	94-95				
Lallemand Fjord	SW		ZOD	98-99				
Laurie Island (nonspecific)	SO	NS	ZOD	94-95				
Leith Cove, Paradise Bay, Graham Land	NW		ZOD	99-00				
Lemaire Channel (non specific)	SW		ZOD	00-01				
			HEL					
			SNO					
Lemaire Is.	NW		ZOD	00-01				
Liège Is.	NW		ZOD	99-00				
Lion Island (east side Anvers Island)	NW		SNO	98-99				
Lion's Rump, King George Island	SH	ASPA	ZOD	89-90	6	12	625	11
Livingston Is. (nonspecific)	SH	NS	ZOD	01-02				
Macaroni Point, Deception Island	SH		ZOD	94-95				
Madder Cliffs, Joinville Is.	NE	ASI	ZOD	00-01				
Marambio Station, Seymour Is. (Argentine STATION)	NE	ASI	ZOD	00-01				
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH	NS	ZOD	93-94				
Maxwell Bay, King George Island (nonspecific)	SH	NS	ZOD	91-92				
McCall Point	SW	ASI	ZOD	02-03				
Melchior Islands (nonspecific)	NW	NS ASI	ZOD	89-90	1		100	
Metchnikoff Point, Brabant Island	NW		ZOD	97-98				
Miers Bluff, Livingston Is.	SH		ZOD	00-01				
Mikklesen Harbor	NW	ASI	ZOD	89-90	1		85	
Mikklesen Islands	SW		ZOD	99-00				
Mitchell Cove, Robert Is.	SH	ASI	ZOD	02-03				
Molchanov Beach, Joinville Island	NW		ZOD	93-94				
Monroe Island, Larsen Islands	SO		ZOD	02-03				
Moreaux Island, Flandres Bay	SW	?	ZOD	98-99				
Mt. Demaria, Cape Tuxen	SW		ZOD	00-01				
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW		ZOD	93-94				
Mt. Scott, Girard Bay, Lemaire Channel	SW		ZOD	95-96				
Mt. Shackleton, Graham Land	SW		ZOD	00-01				
Mt. Tennant, Rongé Is.	NW		ZOD	00-01				
Mt. William, Anvers Is.	NW		ZOD	00-01				
Murray Island (off w. coast Graham Land)	NW		ZOD	93-94				
Neko Harbor, Andvord Bay	NW	ASI	ZOD	92-93				
			CAM					
Ohridsky Base	SH		ZOD	02-03				
Orcadas STATION, Iceberg Bay, Laurie Island	SO	ST ASI	ZOD	90-91				
Orne Harbor (w. coast Graham Land)	NW		ZOD	95-96				
			CAM					
			CLI					
Orne Islands	NW	ASI	ZOD	92-93				
Palaver Pt., Two Hummock Is.	NW		ZOD	00-01				
Palmer STATION (old), Arthur Harbor, Anvers Island	NW		ZOD	00-01				
Palmer STATION, Arthur Harbor, Anvers Island	NW	ST	ZOD	89-90	11	2	1,252	2
Paradise Bay (nonspecific)	NW	NS	ZOD	95-96				
			HEL					
			CAM					
Patagonia Bay, Anvers Is.	NW		ZOD	99-00				
Paulet Island	NE	ASI	ZOD	89-90	7	9	772	9
			SNO					

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		90-91		91-92		91-92		91-92	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
King Sejong STATION, Maxwell Bay, King George Island	SH					2		191	
Kinnes Cove, Suspiros Bay, Joinville Island	NW								
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW								
Lallemand Fjord	SW								
Laurie Island (nonspecific)	SO								
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW								
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW								
Lion's Rump, King George Island	SH	7	11	772	12	4	22	382	23
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH								
Madder Cliffs, Joinville Is.	NE								
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH								
Maxwell Bay, King George Island (nonspecific)	SH					1		78	
McCall Point	SW								
Melchior Islands (nonspecific)	NW					3	25	249	
Metchnikoff Point, Brabant Island	NW								
Miers Bluff, Livingston Is.	SH								
Mikklesen Harbor	NW					1		72	
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW								
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW								
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW								
Mt. Scott, Girard Bay, Lemaire Channel	SW								
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW								
Neko Harbor, Andvord Bay	NW								
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	1		36		2		148	
Orne Harbor (w. coast Graham Land)	NW								
Orne Islands	NW								
Palaver Pt., Two Hummock Is.	NW								
Palmer STATION (old), Arthur Harbor, Anvers Island	NW								
Palmer STATION, Arthur Harbor, Anvers Island	NW	9	7	923	10	11	13	1,265	13
Paradise Bay (nonspecific)	NW								
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	4	17	240	19	14	9	2,239	7

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		92-93		93-94		93-94		93-94	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
King Sejong STATION, Maxwell Bay, King George Island	SH					1		180	
Kinnes Cove, Suspiros Bay, Joinville Island	NW					1		71	
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW								
Lallemand Fjord	SW								
Laurie Island (nonspecific)	SO								
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW								
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW								
Lion's Rump, King George Island	SH								
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH								
Madder Cliffs, Joinville Is.	NE								
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH					1		78	
Maxwell Bay, King George Island (nonspecific)	SH					2		166	
McCall Point	SW								
Melchior Islands (nonspecific)	NW	1		17		2		203	
Metchnikoff Point, Brabant Island	NW								
Miers Bluff, Livingston Is.	SH								
Mikklesen Harbor	NW	7	20	258					
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW					2		65	
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW								
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW					1		16	
Mt. Scott, Girard Bay, Lemaire Channel	SW								
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW					1		27	
Neko Harbor, Andvord Bay	NW	8	17	357	21	6	22	275	25
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	1		127		2		152	
Orne Harbor (w. coast Graham Land)	NW								
Orne Islands	NW	2		201		1		54	
Palaver Pt., Two Hummock Is.	NW								
Palmer STATION (old), Arthur Harbor, Anvers Island	NW								
Palmer STATION, Arthur Harbor, Anvers Island	NW	9	14	1,014	11	10	16	1,185	13
Paradise Bay (nonspecific)	NW								
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	16	8	1,498	9	18	9	1,664	12

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		94-95		95-96		94-95		95-96	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
King Sejong STATION, Maxwell Bay, King George Island	SH								
Kinnes Cove, Suspiros Bay, Joinville Island	NW								
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW	1		99					
Lallemand Fjord	SW								
Laurie Island (nonspecific)	SO	1		96		2		201	
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW								
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW								
Lion's Rump, King George Island	SH								
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH	1		36					
Madder Cliffs, Joinville Is.	NE								
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH								
Maxwell Bay, King George Island (nonspecific)	SH					3		148	
McCall Point	SW								
Melchior Islands (nonspecific)	NW	1		14					
Metchnikoff Point, Brabant Island	NW								
Miers Bluff, Livingston Is.	SH								
Mikklesen Harbor	NW	3		160		2		76	
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW	1		24		3		134	
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW								
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW								
Mt. Scott, Girard Bay, Lemaire Channel	SW					1		14	
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW								
Neko Harbor, Andvord Bay	NW	12	14	560	23	21	13	963	19
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	3		198		3		203	
Orne Harbor (w. coast Graham Land)	NW					1		30	
Orne Islands	NW	7	25	368		1		42	
Palaver Pt., Two Hummock Is.	NW								
Palmer STATION (old), Arthur Harbor, Anvers Island	NW								
Palmer STATION, Arthur Harbor, Anvers Island	NW	9	19	1,030	14	8	25	724	21
Paradise Bay (nonspecific)	NW					36	8	2,772	8
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	30	10	2,819	6	31	9	2,315	10

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		96-97		97-98		97-98		97-98	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
King Sejong STATION, Maxwell Bay, King George Island	SH								
Kinnes Cove, Suspiros Bay, Joinville Island	NW					3		372	
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW								
Lallemand Fjord	SW								
Laurie Island (nonspecific)	SO	1		98					
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW								
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW								
Lion's Rump, King George Island	SH								
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH								
Madder Cliffs, Joinville Is.	NE								
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH								
Maxwell Bay, King George Island (nonspecific)	SH					1		70	
McCall Point	SW								
Melchior Islands (nonspecific)	NW	3		118		1		257	
Metchnikoff Point, Brabant Island	NW					1		55	
Miers Bluff, Livingston Is.	SH								
Mikklesen Harbor	NW	1		72		5		341	
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW								
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW								
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW								
Mt. Scott, Girard Bay, Lemaire Channel	SW								
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW								
Neko Harbor, Andvord Bay	NW	36	8	2,348	9	27	10	1,737	11
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	4		491					
Orne Harbor (w. coast Graham Land)	NW	3		266		1		57	
Orne Islands	NW								
Palaver Pt., Two Hummock Is.	NW								
Palmer STATION (old), Arthur Harbor, Anvers Island	NW								
Palmer STATION, Arthur Harbor, Anvers Island	NW	11	19	979	18	14	16	1,417	13
Paradise Bay (nonspecific)	NW	22	14	1,739	14	15	15	941	19
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	31	11	2,808	5	8	23	732	23

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		98-99			89-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
King Sejong STATION, Maxwell Bay, King George Island	SH	1		85	4		456		
Kinnes Cove, Suspiros Bay, Joinville Island	NW	1		54	5		497		
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW				1		99		
Lallemand Fjord	SW	1		59	1		59		
Laurie Island (nonspecific)	SO	3		314	7		709		
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW								
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW	1		15	1		15		
Lion's Rump, King George Island	SH				17		1,779		
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH				1		36		
Madder Cliffs, Joinville Is.	NE								
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH				1		78		
Maxwell Bay, King George Island (nonspecific)	SH				7		462		
McCall Point	SW								
Melchior Islands (nonspecific)	NW	3		30	15		988		
Metchnikoff Point, Brabant Island	NW	1		2	2		57		
Miers Bluff, Livingston Is.	SH								
Mikklesen Harbor	NW	3		152	23		1,216		
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW				6		223		
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW	1		70	1		70		
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW				1		16		
Mt. Scott, Girard Bay, Lemaire Channel	SW				1		14		
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW				1		27		
Neko Harbor, Andvord Bay	NW	42	6	3,613	8	152	11	9,853	16
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	4		462	20		1,817		
Orne Harbor (w. coast Graham Land)	NW	1		72	6		425		
Orne Islands	NW					11	665		
Palaver Pt., Two Hummock Is.	NW								
Palmer STATION (old), Arthur Harbor, Anvers Island	NW								
Palmer STATION, Arthur Harbor, Anvers Island	NW	12	22	1,001	22	104	16	10,790	14
Paradise Bay (nonspecific)	NW	15	16	1,529	16	88	18	6,981	18
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	37	8	3,722	7	196	9	18,809	10

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		89-94			94-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
King Sejong STATION, Maxwell Bay, King George Island	SH	3		371		1		85	
Kinnes Cove, Suspiros Bay, Joinville Island	NW	1		71		4		426	
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW					1		99	
Lallemand Fjord	SW					1		59	
Laurie Island (nonspecific)	SO					7		709	
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW								
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW					1		15	
Lion's Rump, King George Island	SH	17	22	1,779	21				
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH					1		36	
Madder Cliffs, Joinville Is.	NE								
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH	1		78					
Maxwell Bay, King George Island (nonspecific)	SH	3		244		4		218	
McCall Point	SW								
Melchior Islands (nonspecific)	NW	7		569		8		419	
Metchnikoff Point, Brabant Island	NW					2		57	
Miers Bluff, Livingston Is.	SH								
Mikklesen Harbor	NW	9		415		14		801	
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW	2		65		4		158	
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW					1		70	
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW	1		16					
Mt. Scott, Girard Bay, Lemaire Channel	SW					1		14	
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW	1		27		0		0	
Neko Harbor, Andvord Bay	NW	14		632		138	9	9,221	12
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	6		463		14		1,354	
Orne Harbor (w. coast Graham Land)	NW					6		425	
Orne Islands	NW	3		255		8		410	
Palaver Pt., Two Hummock Is.	NW								
Palmer STATION (old), Arthur Harbor, Anvers Island	NW								
Palmer STATION, Arthur Harbor, Anvers Island	NW	50	12	5,639	12	54	20	5,151	18
Paradise Bay (nonspecific)	NW					88	15	6,981	16
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	59	11	6,413	11	137	10	12,396	8

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-00			00-01			Visitors by Zodiac Landing	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing		
King Sejong STATION, Maxwell Bay, King George Island	SH					1		6	
Kinnes Cove, Suspiros Bay, Joinville Island	NW					1		35	
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW	1		113					
Lallemand Fjord	SW								
Laurie Island (nonspecific)	SO	1		35					
Leith Cove, Paradise Bay, Graham Land	NW	1		102		1		114	
Lemaire Channel (non specific)	SW					1		38	
Lemaire Is.	NW					1		9	
Liège Is.	NW	1		36					
Lion Island (east side Anvers Island)	NW								
Lion's Rump, King George Island	SH								
Livingston Is. (nonspecific)	SH								
Macaroni Point, Deception Island	SH								
Madder Cliffs, Joinville Is.	NE					1		92	
Marambio Station, Seymour Is. (Argentine STATION)	NE					4		128	
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH								
Maxwell Bay, King George Island (nonspecific)	SH								
McCall Point	SW								
Melchior Islands (nonspecific)	NW					2		496	
Metchnikoff Point, Brabant Island	NW								
Miers Bluff, Livingston Is.	SH					1		75	
Mikklesen Harbor	NW	9		548		11	24	956	22
Mikklesen Islands	SW	1		163					
Mitchell Cove, Robert Is.	SH								
Molchanov Beach, Joinville Island	NW					2		6	
Monroe Island, Larsen Islands	SO								
Moreaux Island, Flandres Bay	SW								
Mt. Demaria, Cape Tuxen	SW					1		3	
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW	1		46		1		6	
Mt. Scott, Girard Bay, Lemaire Channel	SW					2		20	
Mt. Shackleton, Graham Land	SW					2		15	
Mt. Tennant, Rongé Is.	NW					1		13	
Mt. William, Anvers Is.	NW					1		2	
Murray Island (off w. coast Graham Land)	NW								
Neko Harbor, Andvord Bay	NW	58	4	4,794	5	51	6	4,383	8
Ohridsky Base	SH								
Orcadas STATION, Iceberg Bay, Laurie Island	SO	12	25	1,388	20	1		43	
Orne Harbor (w. coast Graham Land)	NW	3		151		7		397	
Orne Islands	NW	1		1		1		6	
Palaver Pt., Two Hummock Is.	NW					1		57	
Palmer STATION (old), Arthur Harbor, Anvers Island	NW					2		8	
Palmer STATION, Arthur Harbor, Anvers Island	NW	12		1,233	23	13	21	1,238	18
Paradise Bay (nonspecific)	NW	22	17	1,766	15	15	19	1,058	21
Patagonia Bay, Anvers Is.	NW	1		41					
Paulet Island	NE	49	7	4,230	6	19	16	1,905	15

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		01-02			02-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
King Sejong STATION, Maxwell Bay, King George Island	SH					1			
Kinnes Cove, Suspiros Bay, Joinville Island	NW	3		249					
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW								
Lallemand Fjord	SW					1		132	
Laurie Island (nonspecific)	SO								
Leith Cove, Paradise Bay, Graham Land	NW								
Lemaire Channel (non specific)	SW	3		90		1		11	
Lemaire Is.	NW								
Liège Is.	NW								
Lion Island (east side Anvers Island)	NW								
Lion's Rump, King George Island	SH								
Livingston Is. (nonspecific)	SH	1		9		1		83	
Macaroni Point, Deception Island	SH								
Madder Cliffs, Joinville Is.	NE					1		93	
Marambio Station, Seymour Is. (Argentine STATION)	NE								
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH								
Maxwell Bay, King George Island (nonspecific)	SH	1		128					
McCall Point	SW					1		50	
Melchior Islands (nonspecific)	NW	1		53		3		137	
Metchnikoff Point, Brabant Island	NW	1		96					
Miers Bluff, Livingston Is.	SH					2		82	
Mikklesen Harbor	NW	12	21	1,025	20	5		330	
Mikklesen Islands	SW								
Mitchell Cove, Robert Is.	SH					2		159	
Molchanov Beach, Joinville Island	NW								
Monroe Island, Larsen Islands	SO					1		165	
Moreaux Island, Flandres Bay	SW								
Mt. Demaria, Cape Tuxen	SW								
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW								
Mt. Scott, Girard Bay, Lemaire Channel	SW					1		6	
Mt. Shackleton, Graham Land	SW								
Mt. Tennant, Rongé Is.	NW								
Mt. William, Anvers Is.	NW								
Murray Island (off w. coast Graham Land)	NW								
Neko Harbor, Andvord Bay	NW	51	4	4,233	6	70	3	5,827	6
Ohridsky Base	SH					2		106	
Orcadas STATION, Iceberg Bay, Laurie Island	SO	7		753		4		389	
Orne Harbor (w. coast Graham Land)	NW	2		226					
Orne Islands	NW					5		257	
Palaver Pt., Two Hummock Is.	NW	1		58					
Palmer STATION (old), Arthur Harbor, Anvers Island	NW	1		8		11		1,355	22
Palmer STATION, Arthur Harbor, Anvers Island	NW	10	25	910	24				
Paradise Bay (nonspecific)	NW	17	13	1,386	15	5		261	
Patagonia Bay, Anvers Is.	NW								
Paulet Island	NE	38	8	3,357	9	21	16	1,916	18

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-03			89-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
King Sejong STATION, Maxwell Bay, King George Island	SH	2		55	6		511		
Kinnes Cove, Suspiros Bay, Joinville Island	NW	4		284	9		781		
Lagarrigue Cove, Selvick Cove (vic. Orne Harbor)	NW	1		113	2		212		
Lallemand Fjord	SW	1		132	2		191		
Laurie Island (nonspecific)	SO	1		35	8		744		
Leith Cove, Paradise Bay, Graham Land	NW	2		216	2		216		
Lemaire Channel (non specific)	SW	5		139	5		139		
Lemaire Is.	NW	1		9	1		9		
Liège Is.	NW	1		36	1		36		
Lion Island (east side Anvers Island)	NW				1		15		
Lion's Rump, King George Island	SH				17		128		
Livingston Is. (nonspecific)	SH	2		92	2		92		
Macaroni Point, Deception Island	SH				1		36		
Madder Cliffs, Joinville Is.	NE	2		185	2		185		
Marambio Station, Seymour Is. (Argentine STATION)	NE	4		128	4		128		
Martel Inlet, Admiralty Bay, King George Island (nonspecific)	SH				1		78		
Maxwell Bay, King George Island (nonspecific)	SH	1		128	8		590		
McCall Point	SW	1		50	1		50		
Melchior Islands (nonspecific)	NW	6		686	21		1,674		
Metchnikoff Point, Brabant Island	NW	1		96	3		153		
Miers Bluff, Livingston Is.	SH	3		157	3		157		
Mikklesen Harbor	NW	37		2,859	60		4,075		
Mikklesen Islands	SW	1		163	1		163		
Mitchell Cove, Robert Is.	SH	2		159	2		159		
Molchanov Beach, Joinville Island	NW	2		6	8		229		
Monroe Island, Larsen Islands	SO	1		165	1		165		
Moreaux Island, Flandres Bay	SW				1		70		
Mt. Demaria, Cape Tuxen	SW	1		3	1		3		
Mt. Mill, Waddington Bay (w. coast Graham Land)	SW	2		52	3		68		
Mt. Scott, Girard Bay, Lemaire Channel	SW	3		26	4		40		
Mt. Shackleton, Graham Land	SW	2		15	2		15		
Mt. Tennant, Rongé Is.	NW	1		13	1		13		
Mt. William, Anvers Is.	NW	1		2	1		2		
Murray Island (off w. coast Graham Land)	NW				1		27		
Neko Harbor, Andvord Bay	NW	230	3	19,237	4	382	9	29,090	11
Ohridsky Base	SH	2		106	2		106		
Orcadas STATION, Iceberg Bay, Laurie Island	SO	24		2,573	44		4,390		
Orne Harbor (w. coast Graham Land)	NW	12		774	18		1,199		
Orne Islands	NW	7		264	18		929		
Palaver Pt., Two Hummock Is.	NW	2		115	2		115		
Palmer STATION (old), Arthur Harbor, Anvers Island	NW	14		1,371	14		1,371		
Palmer STATION, Arthur Harbor, Anvers Island	NW	35		3,381	139	21	14,171	17	
Paradise Bay (nonspecific)	NW	59	18	4,471	22	147	19	11,452	20
Patagonia Bay, Anvers Is.	NW	1		41	1		41		
Paulet Island	NE	127	12	11,408	13	323	10	30,217	10

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90		Visitors by Zodiac Landing	Rank (1-25)
					Zodiac Landings	Rank (1-25)		
Pendulum Cove, Deception Island	SH	ASI	ZOD	89-90	7	10	587	13
Penguin Island	SH	ASI	ZOD	89-90	3	21	256	23
Penguin Point, Seymour Island	NE	ASI	ZOD	91-92				
Penola Strait (nonspecific)	SW	NS	ZOD	01-02				
Peon Peak, Errera Channel	NW		HEL	ZOD				
Persson Is.	NE	ASI	ZOD	01-02				
Petermann Island	SW	ASI	ZOD	89-90	6	11	761	10
Petrel STATION, Petrel Cove, Dundee Island	NE	ST	ZOD	91-92				
Pitt Islands	SW		ZOD	94-95				
Pitt Point (Victory Glacier)	NE		ZOD	96-97				
Pléneau Island	SW	ASI	ZOD	92-93				
			CAM					
			SNO					
Point Lookout, Elephant Island	EI	ASI	ZOD	89-90	5	15	541	14
Point Martin, So. Orkneys	SO		ZOD	96-97				
Point Thomas, Admiralty Bay, King George Island	SH	ASPA	ZOD	94-95				
Point Wild, Elephant Island	EI	ASI	ZOD	89-90	2	23	265	22
Port Charcot, Booth Island	SW	ASI	ZOD	95-96				
Portal Point, Charlotte Bay	NW	ASI	CAM	90-91				
Potter Cove	SH		ZOD	00-01				
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW	ST	ZOD	92-93				
Prince Gustav Channel (nonspecific)	NE	NS	ZOD	96-97				
Prospect Point, Graham Land	SW	ASI	ZOD	92-93				
Py Point, Doumer Is.	NW	ASI	ZOD	00-01				
Robert Is. (nonspecific)	SH	NS	ZOD	00-01				
Robert Point, Robert Island	SH	ASI	ZOD	95-96				
Rojas Peak, Lemaire Is.	NW		ZOD	02-03				
Rosamel Island	NE		ZOD	90-91				
Rothera STATION, Adelaide Island	SW	ST	ZOD	89-90	1		99	
Rum Cove, James Ross Island	NE	ASI	ZOD	96-97				
Sally Cove, Horseshoe Is.	SW		ZOD	02-03				
San Martin STATION	SW	ST	ZOD	94-95				
Sandefjord Bay, South Orkney Islands	SO		ZOD	02-03				
Sapple Is., South Orkney Islands	SO		ZOD	02-03				
Seymour Island (nonspecific)	NE	NS	ZOD	95-96				
Shingle Cove, Iceberg Bay, Coronation Island	SO		ZOD	89-90	4	17	436	17
Shumskiy Cove, Arrowsmith Peninsula	SW	ASI	ZOD	02-03				
Siffrey Point, Trinity Peninsula	NW	ASI	ZOD	02-03				
Signy Base, So. Orkneys	SO		ZOD	96-97				
Signy Island (nonspecific)	SO	NS	ZOD	89-90	1		145	
Skontrop Cove, Paradise Bay	NW		ZOD	92-93				
Small Island, Christiana Islands	NW		ZOD	95-96				
Snow Hill Island	NE	ASI	ZOD	89-90	2	26	125	
South Bay, Livingston Island	SH		SNO	93-94				
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW		ZOD	93-94				
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW	ASI	ZOD	95-96				
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH		ZOD	00-01				
Stonington Island	SW	ASI	ZOD	89-90	1		97	
			HEL					
Suarez Glacier, Paradise Bay	NW		ZOD	96-97				
Takai Peninsula (Takaki Promontory )	NW	?	ZOD	96-97				
Tay Head, Joinville Is.	NE	ASI	ZOD	01-02				
Telefon Bay, Deception Island	SH	ASI	ZOD	89-90	6	14	492	15
			SNO					

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		90-91		91-92		91-92		91-92	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Pendulum Cove, Deception Island	SH	10	5	1,215	4	19	6	2,011	8
Penguin Island	SH					1		65	
Penguin Point, Seymour Island	NE					1		86	
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW								
Persson Is.	NE								
Petermann Island	SW	11	3	1,084	6	14	11	1,376	11
Petrel STATION, Petrel Cove, Dundee Island	NE					1		144	
Pitt Islands	SW								
Pitt Point (Victory Glacier)	NE								
Pléneau Island	SW								
Point Lookout, Elephant Island	EI	2	25	124	25	5	20	579	21
Point Martin, So. Orkneys	SO								
Point Thomas, Admiralty Bay, King George Island	SH								
Point Wild, Elephant Island	EI	2	23	151	23	2		268	
Port Charcot, Booth Island	SW								
Portal Point, Charlotte Bay	NW	1		93					
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW								
Prince Gustav Channel (nonspecific)	NE								
Prospect Point, Graham Land	SW								
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH								
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE	1		82					
Rothera STATION, Adelaide Island	SW								
Rum Cove, James Ross Island	NE								
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW								
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE								
Shingle Cove, Iceberg Bay, Coronation Island	SO	1		38		2		240	
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO								
Signy Island (nonspecific)	SO								
Skontrop Cove, Paradise Bay	NW								
Small Island, Christiana Islands	NW								
Snow Hill Island	NE					1		90	
South Bay, Livingston Island	SH								
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW								
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW								
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW								
Suarez Glacier, Paradise Bay	NW								
Takai Peninsula (Takaki Promontory ?)	NW								
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	4	16	452	17	6	19	606	20

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		92-93		Visitors by Zodiac Landing	Rank (1-25)	93-94		Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)			Zodiac Landings	Rank (1-25)		
Pendulum Cove, Deception Island	SH	23	2		2	33	2		5
Penguin Island	SH	7	19	1,936	17	13	13	3,159	14
Penguin Point, Seymour Island	NE	1		85		2		129	
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW								
Persson Is.	NE								
Petermann Island	SW	14	10	1,376	10	30	6	2,828	8
Petrel STATION, Petrel Cove, Dundee Island	NE					3		98	
Pitt Islands	SW								
Pitt Point (Victory Glacier)	NE								
Pléneau Island	SW	10	13	447	19	6	21	370	24
Point Lookout, Elephant Island	EI	4	25	271		6	19	1,131	16
Point Martin, So. Orkneys	SO								
Point Thomas, Admiralty Bay, King George Island	SH								
Point Wild, Elephant Island	EI	1		95		1		108	
Port Charcot, Booth Island	SW								
Portal Point, Charlotte Bay	NW	8	16	592	16	10	17	781	21
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW	4	26	152		6	24	159	
Prince Gustav Channel (nonspecific)	NE								
Prospect Point, Graham Land	SW	3		305	24				
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH								
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE					1		154	
Rothera STATION, Adelaide Island	SW								
Rum Cove, James Ross Island	NE								
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW								
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE								
Shingle Cove, Iceberg Bay, Coronation Island	SO					5	25	991	17
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO								
Signy Island (nonspecific)	SO	2		130					
Skontrop Cove, Paradise Bay	NW	7	21	257					
Small Island, Christiana Islands	NW								
Snow Hill Island	NE								
South Bay, Livingston Island	SH					1		125	
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW					1		33	
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW								
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW								
Suarez Glacier, Paradise Bay	NW								
Takai Peninsula (Takaki Promontory ?)	NW								
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	1		72		12	15	819	20

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		94-95			95-96			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Pendulum Cove, Deception Island	SH	41	6		7	42	6		6
Penguin Island	SH	24	12	2,803	11	23	12	3,492	16
Penguin Point, Seymour Island	NE	1		41					
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW								
Persson Is.	NE								
Petermann Island	SW	42	5	3,406	3	47	4	3,504	5
Petrel STATION, Petrel Cove, Dundee Island	NE								
Pitt Islands	SW	1		87					
Pitt Point (Victory Glacier)	NE								
Pléneau Island	SW	6		374		20	15	1,333	17
Point Lookout, Elephant Island	EI	9	20	951	15	4		442	
Point Martin, So. Orkneys	SO								
Point Thomas, Admiralty Bay, King George Island	SH	1		38					
Point Wild, Elephant Island	EI	3		185		1		26	
Port Charcot, Booth Island	SW					1		74	
Portal Point, Charlotte Bay	NW	8	22	641	21	14	20	890	20
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW	2		63					
Prince Gustav Channel (nonspecific)	NE								
Prospect Point, Graham Land	SW	4		291		2		122	
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH					2		118	
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE								
Rothera STATION, Adelaide Island	SW	2		243		1		160	
Rum Cove, James Ross Island	NE								
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW	1		95					
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE					2		99	
Shingle Cove, Iceberg Bay, Coronation Island	SO	4		368		2		153	
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO								
Signy Island (nonspecific)	SO	1		4					
Skontrop Cove, Paradise Bay	NW								
Small Island, Christiana Islands	NW					1		38	
Snow Hill Island	NE	4		304		2		187	
South Bay, Livingston Island	SH								
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW								
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW					1		48	
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW	2		197					
Suarez Glacier, Paradise Bay	NW								
Takai Peninsula (Takaki Promontory ?)	NW								
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	5		403		7		543	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		96-97		Visitors by		97-98		Visitors by	
		Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)
Pendulum Cove, Deception Island	SH	44	5		6	31	8		7
Penguin Island	SH	12	17	1,090	17	15	14	1,394	14
Penguin Point, Seymour Island	NE								
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW								
Persson Is.	NE								
Petermann Island	SW	34	10	2,576	7	42	4	3,866	6
Petrel STATION, Petrel Cove, Dundee Island	NE								
Pitt Islands	SW								
Pitt Point (Victory Glacier)	NE	1		88					
Pléneau Island	SW	24	12	1,803	12	8	24	548	
Point Lookout, Elephant Island	EI	8	23	818	19	7	27	749	22
Point Martin, So. Orkneys	SO	1		80					
Point Thomas, Admiralty Bay, King George Island	SH								
Point Wild, Elephant Island	EI					2		267	
Port Charcot, Booth Island	SW								
Portal Point, Charlotte Bay	NW	5		370		4		118	
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW	2		103					
Prince Gustav Channel (nonspecific)	NE	1		105					
Prospect Point, Graham Land	SW					1		91	
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH	1		45		6		383	
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE								
Rothera STATION, Adelaide Island	SW								
Rum Cove, James Ross Island	NE	1		80					
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW								
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE	1		59					
Shingle Cove, Iceberg Bay, Coronation Island	SO	4		295					
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO	1		42					
Signy Island (nonspecific)	SO								
Skontrop Cove, Paradise Bay	NW					1		90	
Small Island, Christiana Islands	NW								
Snow Hill Island	NE	1		35					
South Bay, Livingston Island	SH								
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW					1		97	
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW								
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW								
Suarez Glacier, Paradise Bay	NW	1		32		1		49	
Takai Peninsula (Takaki Promontory ?)	NW	1		52					
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	4		282		7	25	566	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		98-99			89-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Pendulum Cove, Deception Island	SH	50	4		300	4		5	
Penguin Island	SH	20	14	4,676	118	15	26,030	17	
Penguin Point, Seymour Island	NE				5		341		
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW								
Persson Is.	NE								
Petermann Island	SW	38	7	3,305	278	6	24,082	7	
Petrel STATION, Petrel Cove, Dundee Island	NE				4		242		
Pitt Islands	SW				1		87		
Pitt Point (Victory Glacier)	NE				1		88		
Pléneau Island	SW	15	18	682	89	17	5,557	21	
Point Lookout, Elephant Island	EI	9	26	983	59	23	6,589	19	
Point Martin, So. Orkneys	SO				1		80		
Point Thomas, Admiralty Bay, King George Island	SH				1		38		
Point Wild, Elephant Island	EI	1		59	15		1,424		
Port Charcot, Booth Island	SW	2		20	3		94		
Portal Point, Charlotte Bay	NW	6		328	56	25	3,813		
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW				14		477		
Prince Gustav Channel (nonspecific)	NE				1		105		
Prospect Point, Graham Land	SW	4		294	14		1,103		
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH				9		546		
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE				2		236		
Rothera STATION, Adelaide Island	SW				4		502		
Rum Cove, James Ross Island	NE				1		80		
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW				1		95		
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE	1		119	4		277		
Shingle Cove, Iceberg Bay, Coronation Island	SO	5		342	27		2,863		
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO				1		42		
Signy Island (nonspecific)	SO				4		279		
Skontrop Cove, Paradise Bay	NW	1		98	9		445		
Small Island, Christiana Islands	NW				1		38		
Snow Hill Island	NE	5		482	15		1,223		
South Bay, Livingston Island	SH				1		125		
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW	1		97	3		227		
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW				1		48		
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW				3		294		
Suarez Glacier, Paradise Bay	NW				2		81		
Takai Peninsula (Takaki Promontory ?)	NW				1		52		
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	13	21	1,039	65	21	5,274	23	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		89-94			94-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Pendulum Cove, Deception Island	SH	92	3		6	208	5	17,122	6
Penguin Island	SH	24	18	8,908	20	94	14	7,369	15
Penguin Point, Seymour Island	NE	4		300		1		41	
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW								
Persson Is.	NE								
Petermann Island	SW	75	6	7,425	8	203	6	16,657	7
Petrel STATION, Petrel Cove, Dundee Island	NE	4		242					
Pitt Islands	SW					1		87	
Pitt Point (Victory Glacier)	NE					1		88	
Pléneau Island	SW	16	24	817		73	17	4,740	19
Point Lookout, Elephant Island	EI	22	19	2,646	17	37	25	3,943	21
Point Martin, So. Orkneys	SO					1		80	
Point Thomas, Admiralty Bay, King George Island	SH					1		38	
Point Wild, Elephant Island	EI	8		887		7		537	
Port Charcot, Booth Island	SW					3		94	
Portal Point, Charlotte Bay	NW	19	21	1,466		37	26	2,347	
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW	10		311		4		166	
Prince Gustav Channel (nonspecific)	NE					1		105	
Prospect Point, Graham Land	SW	3		305		11		798	
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH					9		546	
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE	2		236		0		0	
Rothera STATION, Adelaide Island	SW	1		99		3		403	
Rum Cove, James Ross Island	NE					1		80	
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW					1		95	
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE					4		277	
Shingle Cove, Iceberg Bay, Coronation Island	SO	12		1,705	23	15		1,158	
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO					1		42	
Signy Island (nonspecific)	SO	3		275		1		4	
Skontrop Cove, Paradise Bay	NW	7		257		2		188	
Small Island, Christiana Islands	NW					1		38	
Snow Hill Island	NE	3		215		12		1,008	
South Bay, Livingston Island	SH	1		125					
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW	1		33		2		194	
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW					1		48	
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW	1		97		2		197	
Suarez Glacier, Paradise Bay	NW					2		81	
Takai Peninsula (Takaki Promontory ?)	NW					1		52	
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	29	15	2,441	18	36		2,833	24

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE		99-00			00-01			Visitors by Zodiac Landing	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)		
Pendulum Cove, Deception Island	SH	57	5		3	45	7	4,211	9
Penguin Island	SH	17	18	1,515	18	9		740	
Penguin Point, Seymour Island	NE								
Penola Strait (nonspecific)	SW								
Peon Peak, Errera Channel	NW					1		7	
Persson Is.	NE								
Petermann Island	SW	48	8	4,159	7	57	3	4,813	5
Petrel STATION, Petrel Cove, Dundee Island	NE								
Pitt Islands	SW	1		53					
Pitt Point (Victory Glacier)	NE	1		85					
Pléneau Island	SW	14	22	730		26	14	1,680	16
Point Lookout, Elephant Island	EI	11		1,095	25	11	23	1,083	20
Point Martin, So. Orkneys	SO								
Point Thomas, Admiralty Bay, King George Island	SH								
Point Wild, Elephant Island	EI					5		638	
Port Charcot, Booth Island	SW					3		16	
Portal Point, Charlotte Bay	NW	10		487		10		590	
Potter Cove	SH					1		6	
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW								
Prince Gustav Channel (nonspecific)	NE					1		129	
Prospect Point, Graham Land	SW					5		265	
Py Point, Doumer Is.	NW					2		93	
Robert Is. (nonspecific)	SH								
Robert Point, Robert Island	SH	1		56					
Rojas Peak, Lemaire Is.	NW								
Rosamel Island	NE								
Rothera STATION, Adelaide Island	SW	2		194		4		20	
Rum Cove, James Ross Island	NE	2		183					
Sally Cove, Horseshoe Is.	SW								
San Martin STATION	SW					2		226	
Sandefjord Bay, South Orkney Islands	SO								
Sapple Is., South Orkney Islands	SO								
Seymour Island (nonspecific)	NE	1		37					
Shingle Cove, Iceberg Bay, Coronation Island	SO	3		226		3		204	
Shumskiy Cove, Arrowsmith Peninsula	SW								
Siffrey Point, Trinity Peninsula	NW								
Signy Base, So. Orkneys	SO					1		123	
Signy Island (nonspecific)	SO								
Skontrop Cove, Paradise Bay	NW	4		185		9		541	
Small Island, Christiana Islands	NW								
Snow Hill Island	NE	5		442					
South Bay, Livingston Island	SH								
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW	1		87		2		171	
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW								
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH					2		13	
Stonington Island	SW					4		346	
Suarez Glacier, Paradise Bay	NW	3		263					
Takai Peninsula (Takaki Promontory ?)	NW								
Tay Head, Joinville Is.	NE								
Telefon Bay, Deception Island	SH	9		634		13	22	937	23

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE		01-02			02-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Pendulum Cove, Deception Island	SH	47	5	4,994	3	42	10	2,447	13
Penguin Island	SH	11	24	1,009	21	14	21	1,262	23
Penguin Point, Seymour Island	NE	4		413		1		56	
Penola Strait (nonspecific)	SW	2		277					
Peon Peak, Errera Channel	NW								
Persson Is.	NE	1		104					
Petermann Island	SW	10	28	721		66	4	6,311	5
Petrel STATION, Petrel Cove, Dundee Island	NE								
Pitt Islands	SW					1		49	
Pitt Point (Victory Glacier)	NE								
Pléneau Island	SW	11	23	917	23	16	19	1,017	24
Point Lookout, Elephant Island	EI	4		300		10		958	
Point Martin, So. Orkneys	SO								
Point Thomas, Admiralty Bay, King George Island	SH								
Point Wild, Elephant Island	EI	1		92			17	1,992	17
Port Charcot, Booth Island	SW	1		8		3		29	
Portal Point, Charlotte Bay	NW	10	29	715		4		284	
Potter Cove	SH								
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW								
Prince Gustav Channel (nonspecific)	NE								
Prospect Point, Graham Land	SW					5		377	
Py Point, Doumer Is.	NW								
Robert Is. (nonspecific)	SH	2		163		1		62	
Robert Point, Robert Island	SH	6		532		4		224	
Rojas Peak, Lemaire Is.	NW					1		3	
Rosamel Island	NE								
Rothera STATION, Adelaide Island	SW					2		110	
Rum Cove, James Ross Island	NE								
Sally Cove, Horseshoe Is.	SW					1		6	
San Martin STATION	SW								
Sandefjord Bay, South Orkney Islands	SO					1		110	
Sapple Is., South Orkney Islands	SO					1		396	
Seymour Island (nonspecific)	NE	1		25		2		82	
Shingle Cove, Iceberg Bay, Coronation Island	SO	8		618		6		413	
Shumskiy Cove, Arrowsmith Peninsula	SW					1		127	
Siffrey Point, Trinity Peninsula	NW					1		124	
Signy Base, So. Orkneys	SO								
Signy Island (nonspecific)	SO					1		111	
Skontrop Cove, Paradise Bay	NW	10	26	822		2		136	
Small Island, Christiana Islands	NW								
Snow Hill Island	NE	16	14	1,589	13	7		516	
South Bay, Livingston Island	SH								
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW	1		92		5		380	
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW								
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH								
Stonington Island	SW								
Suarez Glacier, Paradise Bay	NW								
Takai Peninsula (Takaki Promontory ?)	NW								
Tay Head, Joinville Is.	NE	3		301					
Telefon Bay, Deception Island	SH	15	16	1,137	19	13	23	995	25

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-03			89-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Pendulum Cove, Deception Island	SH	191	5	16,952	6	491	4	42,982	5
Penguin Island	SH	51	21	4,526	21	169	16	13,888	18
Penguin Point, Seymour Island	NE	5		469		10		810	
Penola Strait (nonspecific)	SW	2		277		2		277	
Peon Peak, Errera Channel	NW	1		7		1		7	
Persson Is.	NE	1		104		1		104	
Petermann Island	SW	181	8	16,004	8	459	6	40,086	6
Petrel STATION, Petrel Cove, Dundee Island	NE					4		242	
Pitt Islands	SW	2		102		3		189	
Pitt Point (Victory Glacier)	NE	1		85		2		173	
Pléneau Island	SW	67	16	4,344	23	156	18	9,901	24
Point Lookout, Elephant Island	EI	36		3,436		95	25	10,025	23
Point Martin, So. Orkneys	SO					1		80	
Point Thomas, Admiralty Bay, King George Island	SH					1		38	
Point Wild, Elephant Island	EI	26		2,722		41		4,146	
Port Charcot, Booth Island	SW	7		53		10		147	
Portal Point, Charlotte Bay	NW	34		2,076		90		5,889	
Potter Cove	SH	1		6		1		6	
Primavera STATION (near Cierva Cove SSSI), Trinity Pen.	NW					14		477	
Prince Gustav Channel (nonspecific)	NE	1		129		2		234	
Prospect Point, Graham Land	SW	10		642		24		1,745	
Py Point, Doumer Is.	NW	2		93		2		93	
Robert Is. (nonspecific)	SH	3		225		3		225	
Robert Point, Robert Island	SH	11		812		20		1,358	
Rojas Peak, Lemaire Is.	NW	1		3		1		3	
Rosamel Island	NE					2		236	
Rothera STATION, Adelaide Island	SW	8		324		12		826	
Rum Cove, James Ross Island	NE	2		183		3		263	
Sally Cove, Horseshoe Is.	SW	1		6		1		6	
San Martin STATION	SW	2		226		3		321	
Sandefjord Bay, South Orkney Islands	SO	1		110		1		110	
Sapple Is., South Orkney Islands	SO	1		396		1		396	
Seymour Island (nonspecific)	NE	4		144		8		421	
Shingle Cove, Iceberg Bay, Coronation Island	SO	20		1,461		47		4,324	
Shumskiy Cove, Arrowsmith Peninsula	SW	1		127		1		127	
Siffrey Point, Trinity Peninsula	NW	1		124		1		124	
Signy Base, So. Orkneys	SO	1		123		2		165	
Signy Island (nonspecific)	SO	1		111		5		390	
Skontrop Cove, Paradise Bay	NW	25		1,684		34		2,129	
Small Island, Christiana Islands	NW					1		38	
Snow Hill Island	NE	28		2,547		43		3,770	
South Bay, Livingston Island	SH					1		125	
Spigot Peak, vic. Orne Harbor (w. coast Graham Land)	NW	9		730		12		957	
Spring Point, Brailmont Cove (vic. Sprightly Island, w.coast Graham Land)	NW					1		48	
St. Kliment Ohridsky Station (Bulgarian base), Livingston Is.	SH	2		13		2		13	
Stonington Island	SW	4		346		7		640	
Suarez Glacier, Paradise Bay	NW	3		263		5		344	
Takai Peninsula (Takaki Promontory ?)	NW					1		52	
Tay Head, Joinville Is.	NE	3		301		3		301	
Telefon Bay, Deception Island	SH	50	24	3,703	24	115	23	8,977	25

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE				1st Landing	89-90		Visitors by Zodiac Landing	Rank (1-25)
					Zodiac Landings	Rank (1-25)		
Torgersen Island, Arthur Harbor	NW	ST	ZOD	90-91				
Trinity Island (nonspecific; namesake also at So. Georgia)	NW	NS	ZOD	94-95				
Turret Point, King George Bay, King George Island	SH	ASI	CLI	93-94				
Uruguay Is., Argentine Islands	SW		ZOD	00-01				
Useful Island	NW		ZOD	94-95				
Vega Is. (nonspecific)	NE	NS	ZOD	01-02				
View Point, Duse Bay (Trinity Pen.)	NE	ASI	ZOD	95-96				
Waddington Bay, W. Coast, Graham Land	SW		ZOD	02-03				
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	ST ASI	ZOD	89-90	9	5	1,038	5
Whalers Bay, Deception Island	SH	ASI	ZOD	89-90	17	1	1,682	1
Wiencke Is. (nonspecific)	NW	NS	ZOD	01-02				
Wilhelmina Bay	NW		ZOD	98-99				
Winter Island, Argentine Islands	SW		HEL ZOD	98-99				
Yalour Islands	SW	ASI	ZOD	90-91				
Yankee Harbor, Greenwich Island	SH	ASI	ZOD	91-92				
TOTALS					164		17,759	
COUNT of SITES VISITED					35			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		90-91		91-92		91-92		91-92	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Torgersen Island, Arthur Harbor	NW	8	9	788	11	8	17	872	17
Trinity Island (nonspecific; namesake also at So. Georgia)	NW								
Turret Point, King George Bay, King George Island	SH								
Uruguay Is., Argentine Islands	SW								
Useful Island	NW								
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE								
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	10	4	1,965	1	15	8	2,398	6
Whalers Bay, Deception Island	SH	13	2	1,496	2	23	3	2,899	2
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW								
Winter Island, Argentine Islands	SW								
Yalour Islands	SW	1		87		2		177	
Yankee Harbor, Greenwich Island	SH					2		763	18
<b>TOTALS</b>		161		19,001		327		38,828	
<b>COUNT of SITES VISITED</b>		32				44			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		92-93		93-94		93-94		93-94	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Torgersen Island, Arthur Harbor	NW	8	15	890	12	2			
Trinity Island (nonspecific; namesake also at So. Georgia)	NW								
Turret Point, King George Bay, King George Island	SH					1		99	
Uruguay Is., Argentine Islands	SW								
Useful Island	NW								
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE								
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	19	6	1,671	4	17	10	3,248	4
Whalers Bay, Deception Island	SH	22	5	1,711	3	37	1	3,480	3
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW								
Winter Island, Argentine Islands	SW								
Yalour Islands	SW					5	26	378	23
Yankee Harbor, Greenwich Island	SH	2		474	18	3		233	
<b>TOTALS</b>		<b>348</b>		<b>27,789</b>		<b>488</b>		<b>50,035</b>	
<b>COUNT of SITES VISITED</b>		<b>50</b>				<b>64</b>			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		94-95			95-96			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Torgersen Island, Arthur Harbor	NW	6		545	24	4			
Trinity Island (nonspecific; namesake also at So. Georgia)	NW	2		135			325		
Turret Point, King George Bay, King George Island	SH	1		146		4	180		
Uruguay Is., Argentine Islands	SW								
Useful Island	NW	1		47					
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE					1	99		
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	20	13	1,559	12	14	19	2,384 9	
Whalers Bay, Deception Island	SH	66	1	5,241	1	67	1	5,033 2	
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW								
Winter Island, Argentine Islands	SW								
Yalour Islands	SW	2		117		3	104		
Yankee Harbor, Greenwich Island	SH	8	24	544	25	19	17	1,893 12	
<b>TOTALS</b>		<b>704</b>		<b>52,610</b>		<b>784</b>		<b>61,345</b>	
<b>COUNT of SITES VISITED</b>		<b>75</b>				<b>71</b>			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		96-97			97-98			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing		
Torgersen Island, Arthur Harbor	NW	3		192		9	21	890	20
Trinity Island (nonspecific; namesake also at So. Georgia)	NW								
Turret Point, King George Bay, King George Island	SH	3		185		9	22	858	21
Uruguay Is., Argentine Islands	SW								
Useful Island	NW								
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE	3		207					
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	12	16	1,095	16	12	17	2,998	9
Whalers Bay, Deception Island	SH	51	3	3,012	4	60	2	5,344	2
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW								
Winter Island, Argentine Islands	SW								
Yalour Islands	SW	3		118		3		167	
Yankee Harbor, Greenwich Island	SH	7	25	473		7	26	589	
<b>TOTALS</b>		<b>775</b>		<b>54,286</b>		<b>714</b>		<b>66,387</b>	
<b>COUNT of SITES VISITED</b>		<b>81</b>				<b>71</b>			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		98-99			89-99			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing		
Torgersen Island, Arthur Harbor	NW	9	27	671		57	24	5,299	22
Trinity Island (nonspecific; namesake also at So. Georgia)	NW	1		69		3		204	
Turret Point, King George Bay, King George Island	SH	2		138		20		1,606	
Uruguay Is., Argentine Islands	SW								
Useful Island	NW					1		47	
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE	1		88		5		394	
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	20	12	3,379	9	148	13	21,735	9
Whalers Bay, Deception Island	SH	69	2	5,427	2	425	1	35,325	1
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW	1		51		1		51	
Winter Island, Argentine Islands	SW	2		169		2		169	
Yalour Islands	SW	3		158		22		1,306	
Yankee Harbor, Greenwich Island	SH	12	23	1,045	19	60	22	6,014	20
<b>TOTALS</b>		<b>858</b>		<b>74,772</b>		<b>5,323</b>		<b>462,812</b>	
<b>COUNT of SITES VISITED</b>		<b>85</b>				<b>165</b>			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		89-94		94-99		89-94		94-99	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
Torgersen Island, Arthur Harbor	NW	26	16	2,676	16	31		2,623	
Trinity Island (nonspecific; namesake also at So. Georgia)	NW					3		204	
Turret Point, King George Bay, King George Island	SH	1		99		19		1,507	
Uruguay Is., Argentine Islands	SW								
Useful Island	NW					1		47	
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE					5		394	
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	70	9	10,320	4	78	16	11,415	10
Whalers Bay, Deception Island	SH	112	1	11,268	1	313	1	24,057	1
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW					1		51	
Winter Island, Argentine Islands	SW					2		169	
Yalour Islands	SW	8		642		14		664	
Yankee Harbor, Greenwich Island	SH	7		1,470	25	53	21	4,544	20
<b>TOTALS</b>		<b>1,488</b>		<b>153,412</b>		<b>3,835</b>		<b>309,400</b>	
<b>COUNT of SITES VISITED</b>		<b>84</b>				<b>148</b>			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-00			00-01			Visitors by Zodiac Landing	
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)		
Torgersen Island, Arthur Harbor	NW	8		693		8		738	
Trinity Island (nonspecific; namesake also at So. Georgia)	NW					1		41	
Turret Point, King George Bay, King George Island	SH	1		89		2		181	
Uruguay Is., Argentine Islands	SW					1		53	
Useful Island	NW	2		193		2		202	
Vega Is. (nonspecific)	NE								
View Point, Duse Bay (Trinity Pen.)	NE	2		138					
Waddington Bay, W. Coast, Graham Land	SW								
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	15	19	2,871	10	17	17	3,299	10
Whalers Bay, Deception Island	SH	86	2	7,333	2	79	2	7,065	2
Wiencke Is. (nonspecific)	NW								
Wilhelmina Bay	NW					1		97	
Winter Island, Argentine Islands	SW					11	25	933	24
Yalour Islands	SW	9		496		6		551	
Yankee Harbor, Greenwich Island	SH	12		1,040		9		778	
<b>TOTALS</b>		<b>1,101</b>		<b>87,977</b>		<b>1,055</b>		<b>91,829</b>	
<b>COUNT of SITES VISITED</b>		<b>91</b>				<b>118</b>			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		01-02			02-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Torgersen Island, Arthur Harbor	NW	7		515	7		637		
Trinity Island (nonspecific; namesake also at So. Georgia)	NW	1		10					
Turret Point, King George Bay, King George Island	SH	1		61	1		66		
Uruguay Is., Argentine Islands	SW				2		145		
Useful Island	NW								
Vega Is. (nonspecific)	NE	1		72					
View Point, Duse Bay (Trinity Pen.)	NE	2		139	4		212		
Waddington Bay, W. Coast, Graham Land	SW				2		110		
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	15	15	4,082	8	22	2,961	11	
Whalers Bay, Deception Island	SH	76	1	6,972	1	95	8,934	1	
Wiencke Is. (nonspecific)	NW	1		7					
Wilhelmina Bay	NW	3		243					
Winter Island, Argentine Islands	SW								
Yalour Islands	SW				15	20	976		
Yankee Harbor, Greenwich Island	SH	6		655	25	15	2,175	16	
<b>TOTALS</b>		<b>866</b>		<b>78,875</b>			<b>104,084</b>		
<b>COUNT of SITES VISITED</b>		<b>87</b>					<b>109</b>		

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE		99-03			89-03			Visitors by Zodiac Landing	Rank (1-25)
		Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)			
Torgersen Island, Arthur Harbor	NW	30		2,583		87		7,882	
Trinity Island (nonspecific; namesake also at So. Georgia)	NW	2		51		5		255	
Turret Point, King George Bay, King George Island	SH	5		397		25		2,003	
Uruguay Is., Argentine Islands	SW	3		198		3		198	
Useful Island	NW	4		395		5		442	
Vega Is. (nonspecific)	NE	1		72		1		72	
View Point, Duse Bay (Trinity Pen.)	NE	8		489		13		883	
Waddington Bay, W. Coast, Graham Land	SW	2		110		2		110	
Waterboat Point (Gonzales Videla STATION), Paradise Bay	NW	60	17	13,213	11	208	15	34,948	9
Whalers Bay, Deception Island	SH	336	1	30,304	1	761	1	65,629	1
Wiencke Is. (nonspecific)	NW	1		7		1		7	
Wilhelmina Bay	NW	4		340		5		391	
Winter Island, Argentine Islands	SW	11		933		13		1,102	
Yalour Islands	SW	30		2,023		52		3,329	
Yankee Harbor, Greenwich Island	SH	52	20	4,648	20	112	24	10,662	21
<b>TOTALS</b>		<b>4,183</b>		<b>362,765</b>		<b>9,506</b>		<b>823,926</b>	
COUNT of SITES VISITED		197				245			

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites					164			
Number of visitors participating in such landings					17,759			
Average visitors per zodiac landing					108			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO					2	5.7%		
EI					2	5.7%		
SH					15	42.9%		
NE					3	8.6%		
NW					7	20.0%		
SW					6	17.1%		
TOTAL, sites experiencing zodiac landings					35			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO					2	5.7%		
EI					2	5.7%		
SH					15	42.9%		
NE					3	8.6%		
NW					7	20.0%		
SW					6	17.1%		
TOTAL, sites experiencing zodiac landings for the first time					35			
<b>TOTAL, "known" sites experiencing zodiac landings</b>					35			
PERCENTAGE of all known sites visited in this time frame					100.0%			
PERCENTAGE of seasonal site visits at "new" sites					100.0%			
Number of zodiac landings at new sites					164			
Seasonal PERCENTAGE of zodiac landings at new sites					100.0%			
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO					1	11.1%		
EI					0	0.0%		
SH					2	22.2%		
NE					1	11.1%		
NW					2	22.2%		
SW					3	23.1%		
TOTAL, number of sites visited only once					9			
PERCENTAGE of all sites visited only once					25.7%			
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO					5	3.0%		
EI					7	4.3%		
SH					82	50.0%		
NE					10	6.1%		
NW					47	28.7%		
SW					13	0.1%		
TOTAL, number of zodiac landings					164			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	90-91 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	91-92 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	161				327			
Number of visitors participating in such landings	19,001				38,828			
Average visitors per zodiac landing	118				119			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	3	9.4%			3	6.8%		
EI	2	6.3%			2	4.5%		
SH	12	37.5%			20	45.5%		
NE	3	9.4%			5	11.4%		
NW	7	21.9%			10	22.7%		
SW	5	15.6%			4	9.1%		
TOTAL, sites experiencing zodiac landings	32				44			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO	2	28.6%			0	0.0%		
EI	0	0.0%			0	0.0%		
SH	0	0.0%			7	58.3%		
NE	1	14.3%			2	16.7%		
NW	2	28.6%			2	16.7%		
SW	2	28.6%			1	8.3%		
TOTAL, sites experiencing zodiac landings for the first time	7				12			
<b>TOTAL, "known" sites experiencing zodiac landings</b>	42				54			
PERCENTAGE of all known sites visited in this time frame	76.2%				81.5%			
PERCENTAGE of seasonal site visits at "new" sites	21.9%				27.3%			
Number of zodiac landings at new sites	16				23			
Seasonal PERCENTAGE of zodiac landings at new sites	9.9%				7.0%			
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO	2	28.6%			0	0.0%		
EI	0	0.0%			0	0.0%		
SH	2	28.6%			4	36.4%		
NE	1	14.3%			3	27.3%		
NW	1	14.3%			3	27.3%		
SW	1	4.8%			1	4.8%		
TOTAL, number of sites visited only once	7				11			
PERCENTAGE of all sites visited only once	16.7%				20.4%			
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	4	2.5%			6	1.8%		
EI	4	2.5%			7	2.1%		
SH	65	40.4%			161	49.2%		
NE	8	5.0%			26	8.0%		
NW	59	36.6%			106	32.4%		
SW	21	0.1%			21	0.1%		
TOTAL, number of zodiac landings	161				327			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	92-93 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	93-94 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	348				488			
Number of visitors participating in such landings	27,789				50,035			
Average visitors per zodiac landing	80				103			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	2	4.0%			4	6.3%		
EI	3	6.0%			3	4.7%		
SH	18	36.0%			21	32.8%		
NE	3	6.0%			6	9.4%		
NW	18	36.0%			22	34.4%		
SW	6	12.0%			8	12.5%		
TOTAL, sites experiencing zodiac landings	50				64			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO	0	0.0%			1	6.3%		
EI	1	7.1%			0	0.0%		
SH	2	14.3%			4	25.0%		
NE	0	0.0%			1	6.3%		
NW	9	64.3%			7	43.8%		
SW	2	14.3%			3	18.8%		
TOTAL, sites experiencing zodiac landings for the first time	14				16			
<b>TOTAL, "known" sites experiencing zodiac landings</b>								
PERCENTAGE of all known sites visited in this time frame	73.5%				76.2%			
PERCENTAGE of seasonal site visits at "new" sites	28.0%				25.0%			
Number of zodiac landings at new sites	51				22			
Seasonal PERCENTAGE of zodiac landings at new sites	14.7%				4.5%			
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO	1	7.1%			2	9.1%		
EI	1	7.1%			1	4.5%		
SH	6	42.9%			8	36.4%		
NE	1	7.1%			2	9.1%		
NW	4	28.6%			6	27.3%		
SW	1	2.9%			3	6.3%		
TOTAL, number of sites visited only once	14				22			
PERCENTAGE of all sites visited only once	20.6%				26.2%			
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	3	0.9%			9	1.8%		
EI	6	1.7%			8	1.6%		
SH	132	37.9%			214	43.9%		
NE	20	5.7%			42	8.6%		
NW	153	44.0%			167	34.2%		
SW	34	0.1%			48	0.1%		
TOTAL, number of zodiac landings	348				488			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	94-95 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	95-96 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	704				784			
Number of visitors participating in such landings	52,610				61,345			
Average visitors per zodiac landing	75				78			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	6	8.0%			3	4.2%		
EI	3	4.0%			2	2.8%		
SH	23	30.7%			22	31.0%		
NE	6	8.0%			10	14.1%		
NW	22	29.3%			24	33.8%		
SW	15	20.0%			10	14.1%		
TOTAL, sites experiencing zodiac landings	75				71			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO	2	9.5%			0	0.0%		
EI	1	4.8%			0	0.0%		
SH	6	28.6%			4	21.1%		
NE	2	9.5%			5	26.3%		
NW	5	23.8%			8	42.1%		
SW	5	23.8%			2	10.5%		
TOTAL, sites experiencing zodiac landings for the first time	21				19			
<b>TOTAL, "known" sites experiencing zodiac landings</b>	105				124			
PERCENTAGE of all known sites visited in this time frame	71.4%				57.3%			
PERCENTAGE of seasonal site visits at "new" sites	28.0%				26.8%			
Number of zodiac landings at new sites	29				75			
Seasonal PERCENTAGE of zodiac landings at new sites	4.1%				9.6%			
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO	4	16.7%			0	0.0%		
EI	0	0.0%			1	5.3%		
SH	7	29.2%			4	21.1%		
NE	2	8.3%			3	15.8%		
NW	5	20.8%			7	36.8%		
SW	6	8.3%			4	4.8%		
TOTAL, number of sites visited only once	24				19			
PERCENTAGE of all sites visited only once	22.9%				15.3%			
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	11	1.6%			7	0.9%		
EI	15	2.1%			5	0.6%		
SH	343	48.7%			351	44.8%		
NE	49	7.0%			67	8.5%		
NW	214	30.4%			271	34.6%		
SW	72	0.1%			83	0.1%		
TOTAL, number of zodiac landings	704				784			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	96-97			97-98		
	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>						
Number of zodiac landings, all sites	775			714		
Number of visitors participating in such landings	54,286			66,387		
Average visitors per zodiac landing	70			93		
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>						
SO	6	7.4%		1	1.4%	
EI	2	2.5%		4	5.6%	
SH	21	25.9%		20	28.2%	
NE	17	21.0%		6	8.5%	
NW	26	32.1%		29	40.8%	
SW	9	11.1%		11	15.5%	
TOTAL, sites experiencing zodiac landings	81			71		
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>						
SO	2	11.1%		1	9.1%	
EI	0	0.0%		1	9.1%	
SH	1	5.6%		0	0.0%	
NE	8	44.4%		1	9.1%	
NW	4	22.2%		5	45.5%	
SW	3	16.7%		3	27.3%	
TOTAL, sites experiencing zodiac landings for the first time	18			11		
<b>TOTAL, "known" sites experiencing zodiac landings</b>	142			153		
PERCENTAGE of all known sites visited in this time frame	57.0%			46.4%		
PERCENTAGE of seasonal site visits at "new" sites	22.2%			15.5%		
Number of zodiac landings at new sites	27			12		
Seasonal PERCENTAGE of zodiac landings at new sites	3.5%			1.7%		
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>						
SO	4	14.3%		1	4.0%	
EI	1	3.6%		2	8.0%	
SH	4	14.3%		2	8.0%	
NE	9	32.1%		3	12.0%	
NW	7	25.0%		11	44.0%	
SW	3	4.1%		6	7.3%	
TOTAL, number of sites visited only once	28			25		
PERCENTAGE of all sites visited only once	19.7%			16.3%		
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>						
SO	12	1.5%		1	0.1%	
EI	9	1.2%		11	1.5%	
SH	310	40.0%		299	41.8%	
NE	80	10.3%		38	5.3%	
NW	290	37.4%		284	39.7%	
SW	74	0.1%		82	0.1%	
TOTAL, number of zodiac landings	775			715		

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	98-99 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	89-99 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	858				5,322			
Number of visitors participating in such landings	74,772				462,756			
Average visitors per zodiac landing	87				87			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	4	4.7%			10	6.1%		
EI	3	3.5%			5	3.0%		
SH	20	23.5%			40	24.2%		
NE	12	14.1%			26	15.8%		
NW	31	36.5%			53	32.1%		
SW	15	17.6%			31	18.8%		
TOTAL, sites experiencing zodiac landings	85				165			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO	0	0.0%						
EI	0	0.0%						
SH	1	8.3%						
NE	3	25.0%						
NW	4	33.3%						
SW	4	33.3%						
TOTAL, sites experiencing zodiac landings for the first time	12							
<b>TOTAL, "known" sites experiencing zodiac landings</b>	165							
PERCENTAGE of all known sites visited in this time frame	51.5%							
PERCENTAGE of seasonal site visits at "new" sites	14.1%							
Number of zodiac landings at new sites	15							
Seasonal PERCENTAGE of zodiac landings at new sites	1.7%							
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO	0	0.0%						
EI	1	3.3%						
SH	3	10.0%						
NE	6	20.0%						
NW	13	43.3%						
SW	7	7.3%						
TOTAL, number of sites visited only once	30							
PERCENTAGE of all sites visited only once	18.2%							
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	15	1.7%			73	1.4%		
EI	12	1.4%			84	1.6%		
SH	344	40.1%			2,301	43.2%		
NE	76	8.9%			416	7.8%		
NW	315	36.7%			1,905	35.8%		
SW	96	0.1%			544	0.1%		
TOTAL, number of zodiac landings	858				5,323			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	89-94 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	94-99 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	1,488				3,835			
Number of visitors participating in such landings	153,412				309,400			
Average visitors per zodiac landing	103				81			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	5	6.0%			10	6.8%		
EI	3	3.6%			4	2.7%		
SH	28	33.3%			32	21.6%		
NE	7	8.3%			25	16.9%		
NW	27	32.1%			48	32.4%		
SW	14	16.7%			29	19.6%		
TOTAL, sites experiencing zodiac landings	84				148			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO								
EI								
SH								
NE								
NW								
SW								
TOTAL, sites experiencing zodiac landings for the first time								
<b>TOTAL, "known" sites experiencing zodiac landings</b>								
PERCENTAGE of all known sites visited in this time frame								
PERCENTAGE of seasonal site visits at "new" sites								
Number of zodiac landings at new sites								
Seasonal PERCENTAGE of zodiac landings at new sites								
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO								
EI								
SH								
NE								
NW								
SW								
TOTAL, number of sites visited only once								
PERCENTAGE of all sites visited only once								
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	27	1.8%			46	1.2%		
EI	32	2.2%			52	1.4%		
SH	654	44.0%			1,647	42.9%		
NE	106	7.1%			310	8.1%		
NW	532	35.8%			1,373	35.8%		
SW	137	0.1%			407	0.1%		
TOTAL, number of zodiac landings	1,488				3,835			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	99-00 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	00-01 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>							
Number of zodiac landings, all sites	1,101				1,055		
Number of visitors participating in such landings	87,977				91,829		
Average visitors per zodiac landing	80				87		
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>							
SO	4	4.4%			3	2.5%	
EI	1	1.1%			2	1.7%	
SH	22	24.2%			25	21.2%	
NE	14	15.4%			12	10.2%	
NW	35	38.5%			46	39.0%	
SW	15	16.5%			30	25.4%	
TOTAL, sites experiencing zodiac landings	91				118		
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>							
SO	0	0.0%			0	0.0%	
EI	0	0.0%			0	0.0%	
SH	0	0.0%			8	22.9%	
NE	2	18.2%			4	11.4%	
NW	6	54.5%			15	42.9%	
SW	3	27.3%			8	22.9%	
TOTAL, sites experiencing zodiac landings for the first time	11				35		
<b>TOTAL, "known" sites experiencing zodiac landings</b>	176				211		
PERCENTAGE of all known sites visited in this time frame	51.7%				55.9%		
PERCENTAGE of seasonal site visits at "new" sites	12.1%				29.7%		
Number of zodiac landings at new sites	16				54		
Seasonal PERCENTAGE of zodiac landings at new sites	1.5%				5.1%		
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>							
SO	2	7.1%			2	3.9%	
EI	0	0.0%			0	0.0%	
SH	5	17.9%			12	23.5%	
NE	3	10.7%			6	11.8%	
NW	9	32.1%			20	39.2%	
SW	9	8.5%			11	5.7%	
TOTAL, number of sites visited only once	28				51		
PERCENTAGE of all sites visited only once	15.9%				24.2%		
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>							
SO	17	1.5%			5	0.5%	
EI	11	1.0%			16	1.5%	
SH	405	36.8%			329	31.2%	
NE	129	11.7%			76	7.2%	
NW	433	39.3%			436	41.3%	
SW	106	0.1%			193	0.2%	
TOTAL, number of zodiac landings	1,101				1,055		

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	01-02 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	02-03 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	866				1,161			
Number of visitors participating in such landings	78,875				104,084			
Average visitors per zodiac landing	91				90			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	3	3.4%			9	8.3%		
EI	4	4.6%			2	1.8%		
SH	24	27.6%			30	27.5%		
NE	13	14.9%			15	13.8%		
NW	35	40.2%			31	28.4%		
SW	8	9.2%			22	20.2%		
TOTAL, sites experiencing zodiac landings	87				109			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO	1	9.1%			4	17.4%		
EI	0	0.0%			0	0.0%		
SH	2	18.2%			4	17.4%		
NE	4	36.4%			3	13.0%		
NW	2	18.2%			6	26.1%		
SW	2	18.2%			6	26.1%		
TOTAL, sites experiencing zodiac landings for the first time	11				23			
<b>TOTAL, "known" sites experiencing zodiac landings</b>	222				245			
PERCENTAGE of all known sites visited in this time frame	39.2%				44.5%			
PERCENTAGE of seasonal site visits at "new" sites	12.6%				21.1%			
Number of zodiac landings at new sites	14				28			
Seasonal PERCENTAGE of zodiac landings at new sites	1.6%				2.4%			
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO	1	3.1%			7	16.3%		
EI	3	9.4%			0	0.0%		
SH	10	31.3%			10	23.3%		
NE	4	12.5%			8	18.6%		
NW	12	37.5%			7	16.3%		
SW	2	6.1%			11	6.5%		
TOTAL, number of sites visited only once	32				43			
PERCENTAGE of all sites visited only once	14.4%				17.6%			
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	16	1.8%			17	1.5%		
EI	7	0.8%			30	2.6%		
SH	315	36.4%			396	34.1%		
NE	121	14.0%			97	8.4%		
NW	374	43.2%			453	39.0%		
SW	33	0.0%			168	0.2%		
TOTAL, number of zodiac landings	866				1,161			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	99-03 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	89-03 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
<b>ZODIAC LANDINGS IN ASI STUDY AREA</b>								
Number of zodiac landings, all sites	4,183				9,506			
Number of visitors participating in such landings	362,765				823,926			
Average visitors per zodiac landing	87				87			
<b>SITES EXPERIENCING ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	13	6.6%			15	6.1%		
EI	4	2.0%			5	2.0%		
SH	42	21.3%			54	22.0%		
NE	29	14.7%			39	15.9%		
NW	65	33.0%			82	33.5%		
SW	44	22.3%			50	20.4%		
TOTAL, sites experiencing zodiac landings	197				245			
<b>SITES EXPERIENCING ZODIAC LANDINGS FOR THE FIRST TIME, BY ASI SUBAREA</b>								
SO								
EI								
SH								
NE								
NW								
SW								
TOTAL, sites experiencing zodiac landings for the first time								
<b>TOTAL, "known" sites experiencing zodiac landings</b>								
PERCENTAGE of all known sites visited in this time frame								
PERCENTAGE of seasonal site visits at "new" sites								
Number of zodiac landings at new sites								
Seasonal PERCENTAGE of zodiac landings at new sites								
<b>NUMBER OF SITES VISITED ONLY ONCE BY ZODIAC, BY ASI SUBAREA</b>								
SO								
EI								
SH								
NE								
NW								
SW								
TOTAL, number of sites visited only once								
PERCENTAGE of all sites visited only once								
<b>NUMBER OF ZODIAC LANDINGS, BY ASI SUBAREA</b>								
SO	55	1.3%			128	1.3%		
EI	64	1.5%			148	1.6%		
SH	1,445	34.5%			3,746	39.4%		
NE	423	10.1%			839	8.8%		
NW	1,696	40.5%			3,601	37.9%		
SW	500	0.1%			1,044	0.1%		
TOTAL, number of zodiac landings	4,183				9,506			

Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003

SITE				1st Landing	89-90 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
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**VISITORS PARTICIPATING IN  
ZODIAC LANDINGS, BY  
SUBAREA**

SO	581	3.3%
EI	806	4.5%
SH	8,499	47.9%
NE	1,042	5.9%
NW	5,345	30.1%
SW	1,486	8.4%
TOTAL, visitors participating in zodiac landings	17,759	

**ZODIAC LANDINGS AND  
PARTICIPATING VISITORS AT  
MOST HEAVILY VISITED  
SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	94
% ZODIAC LANDINGS @ "Top 10" sites	57.3%
Total PARTICIPATING VISITORS @ "Top 10" sites	10,322
% PARTICIPATING VISITORS @ "Top 10" sites	58.1%

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	123
% ZODIAC LANDINGS @ "Top 15" sites	75.0%
Total PARTICIPATING VISITORS @ "Top 15" sites	13,362
% PARTICIPATING VISITORS @ "Top 15" sites	75.2%

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	142
% ZODIAC LANDINGS @ "Top 20" sites	86.6%
Total PARTICIPATING VISITORS @ "Top 20" sites	15,395
% PARTICIPATING VISITORS @ "Top 20" sites	86.7%

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	90-91		91-92		90-91		91-92	
	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	259	1.4%			758	2.0%
EI	275	1.4%			847	2.2%
SH	7,826	41.2%			17,955	46.2%
NE	1,452	7.6%			3,837	9.9%
NW	7,243	38.1%			13,128	33.8%
SW	1,946	10.2%			2,303	5.9%
TOTAL, visitors participating in zodiac landings	19,001				38,828	

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	101			193
% ZODIAC LANDINGS @ "Top 10" sites	62.7%			59.0%
Total PARTICIPATING VISITORS @ "Top 10" sites	11,956			23,741
% PARTICIPATING VISITORS @ "Top 10" sites	62.9%			61.1%

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	129			250
% ZODIAC LANDINGS @ "Top 15" sites	80.1%			76.5%
Total PARTICIPATING VISITORS @ "Top 15" sites	14,941			29,808
% PARTICIPATING VISITORS @ "Top 15" sites	78.6%			76.8%

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	144			283
% ZODIAC LANDINGS @ "Top 20" sites	89.4%			86.5%
Total PARTICIPATING VISITORS @ "Top 20" sites	17,663			33,687
% PARTICIPATING VISITORS @ "Top 20" sites	93.0%			86.8%

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	92-93		Visitors by		93-94		Visitors by	
	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	257	0.9%			1,458	2.9%
EI	394	1.4%			1,357	2.7%
SH	10,904	39.2%			21,891	43.8%
NE	1,792	6.4%			3,879	7.8%
NW	11,371	40.9%			16,960	33.9%
SW	3,071	11.1%			4,490	9.0%
TOTAL, visitors participating in zodiac landings	27,789				50,035	

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	197				282	
% ZODIAC LANDINGS @ "Top 10" sites	56.6%				57.8%	
Total PARTICIPATING VISITORS @ "Top 10" sites	16,706				30,111	
% PARTICIPATING VISITORS @ "Top 10" sites	60.1%				60.2%	

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	244				353	
% ZODIAC LANDINGS @ "Top 15" sites	70.1%				72.3%	
Total PARTICIPATING VISITORS @ "Top 15" sites	20,312				37,993	
% PARTICIPATING VISITORS @ "Top 15" sites	73.1%				75.9%	

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	281				394	
% ZODIAC LANDINGS @ "Top 20" sites	80.7%				80.7%	
Total PARTICIPATING VISITORS @ "Top 20" sites	22,626				42,949	
% PARTICIPATING VISITORS @ "Top 20" sites	81.4%				85.8%	

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	94-95			95-96		
	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

Subarea	94-95 Zodiac Landings	Rank (1-25)	95-96 Zodiac Landings	Rank (1-25)
SO	912	1.7%	557	0.9%
EI	1,395	2.7%	468	0.8%
SH	27,130	51.6%	28,108	45.8%
NE	4,234	8.0%	5,242	8.5%
NW	13,313	25.3%	21,199	34.6%
SW	5,626	10.7%	5,771	9.4%
TOTAL, visitors participating in zodiac landings	52,610		61,345	

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	416	435
% ZODIAC LANDINGS @ "Top 10" sites	59.1%	55.5%
Total PARTICIPATING VISITORS @ "Top 10" sites	30,991	35,823
% PARTICIPATING VISITORS @ "Top 10" sites	58.9%	58.4%

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	510	543
% ZODIAC LANDINGS @ "Top 15" sites	72.4%	69.3%
Total PARTICIPATING VISITORS @ "Top 15" sites	37,478	43,051
% PARTICIPATING VISITORS @ "Top 15" sites	71.2%	70.2%

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	558	626
% ZODIAC LANDINGS @ "Top 20" sites	79.3%	79.8%
Total PARTICIPATING VISITORS @ "Top 20" sites	41,767	50,788
% PARTICIPATING VISITORS @ "Top 20" sites	79.4%	82.8%

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	96-97		Visitors by		97-98		Visitors by	
	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	1,102	2.0%			115	0.2%
EI	868	1.6%			1,228	1.8%
SH	21,194	39.0%			27,494	41.4%
NE	6,198	11.4%			3,416	5.1%
NW	19,267	35.5%			27,268	41.1%
SW	5,657	10.4%			6,866	10.3%
TOTAL, visitors participating in zodiac landings	54,286				66,387	

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	435			413
% ZODIAC LANDINGS @ "Top 10" sites	56.1%			57.8%
Total PARTICIPATING VISITORS @ "Top 10" sites	28,170			39,666
% PARTICIPATING VISITORS @ "Top 10" sites	51.9%			59.7%

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	548			499
% ZODIAC LANDINGS @ "Top 15" sites	70.7%			69.8%
Total PARTICIPATING VISITORS @ "Top 15" sites	37,442			45,881
% PARTICIPATING VISITORS @ "Top 15" sites	69.0%			69.1%

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	604			557
% ZODIAC LANDINGS @ "Top 20" sites	77.9%			77.9%
Total PARTICIPATING VISITORS @ "Top 20" sites	41,832			52,666
% PARTICIPATING VISITORS @ "Top 20" sites	77.1%			79.3%

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	98-99		Visitors by		89-99		Visitors by	
	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Zodiac Landing	Rank (1-25)

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	1,317	1.8%			7,316	1.6%
EI	1,312	1.8%			8,950	1.9%
SH	29,886	40.0%			200,887	43.4%
NE	7,181	9.6%			38,273	8.3%
NW	28,123	37.6%			163,217	35.3%
SW	6,953	9.3%			44,169	9.5%
TOTAL, visitors participating in zodiac landings	74,772				462,812	

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	478			2,886
% ZODIAC LANDINGS @ "Top 10" sites	55.7%			54.2%
Total PARTICIPATING VISITORS @ "Top 10" sites	42,855			256,352
% PARTICIPATING VISITORS @ "Top 10" sites	57.3%			55.4%

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	577			3,600
% ZODIAC LANDINGS @ "Top 15" sites	67.2%			67.6%
Total PARTICIPATING VISITORS @ "Top 15" sites	53,228			320,697
% PARTICIPATING VISITORS @ "Top 15" sites	71.2%			69.3%

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	649			4,040
% ZODIAC LANDINGS @ "Top 20" sites	75.6%			75.9%
Total PARTICIPATING VISITORS @ "Top 20" sites	58,846			359,045
% PARTICIPATING VISITORS @ "Top 20" sites	78.7%			77.6%

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	89-94		94-99		94-99			
	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	3,313	2.2%			4,003	1.3%		
EI	3,679	2.4%			5,271	1.7%		
SH	67,075	43.7%			133,812	43.2%		
NE	12,002	7.8%			26,271	8.5%		
NW	54,047	35.2%			109,170	35.3%		
SW	13,296	8.7%			30,873	10.0%		
TOTAL, visitors participating in zodiac landings	153,412				309,400			

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites  
 % ZODIAC LANDINGS @ "Top 10" sites  
 Total PARTICIPATING VISITORS @ "Top 10" sites  
 % PARTICIPATING VISITORS @ "Top 10" sites

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites  
 % ZODIAC LANDINGS @ "Top 15" sites  
 Total PARTICIPATING VISITORS @ "Top 15" sites  
 % PARTICIPATING VISITORS @ "Top 15" sites

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites  
 % ZODIAC LANDINGS @ "Top 20" sites  
 Total PARTICIPATING VISITORS @ "Top 20" sites  
 % PARTICIPATING VISITORS @ "Top 20" sites

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	99-00 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	00-01 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing
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**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	1,753	2.0%			370	0.4%	
EI	1,095	1.2%			1,721	1.9%	
SH	29,145	33.1%			30,594	33.3%	
NE	10,568	12.0%			6,970	7.6%	
NW	37,632	42.8%			38,448	41.9%	
SW	7,784	8.8%			13,726	14.9%	
TOTAL, visitors participating in zodiac landings	87,977				91,829		

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	596				551		
% ZODIAC LANDINGS @ "Top 10" sites	54.1%				52.2%		
Total PARTICIPATING VISITORS @ "Top 10" sites	46,646				50,055		
% PARTICIPATING VISITORS @ "Top 10" sites	53.0%				54.5%		

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	741				689		
% ZODIAC LANDINGS @ "Top 15" sites	67.3%				65.3%		
Total PARTICIPATING VISITORS @ "Top 15" sites	58,400				63,619		
% PARTICIPATING VISITORS @ "Top 15" sites	66.4%				69.3%		

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	831				770		
% ZODIAC LANDINGS @ "Top 20" sites	75.5%				73.0%		
Total PARTICIPATING VISITORS @ "Top 20" sites	67,446				72,090		
% PARTICIPATING VISITORS @ "Top 20" sites	76.7%				78.5%		

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	01-02 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)	02-03 Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Rank (1-25)
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**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

SO	1,480	1.9%			1,949	1.9%		
EI	500	0.6%			2,950	2.8%		
SH	30,401	38.5%			35,474	34.1%		
NE	11,281	14.3%			8,324	8.0%		
NW	32,745	41.5%			42,202	40.5%		
SW	2,468	3.1%			13,185	12.7%		
TOTAL, visitors participating in zodiac landings	78,875				104,084			

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	470				621			
% ZODIAC LANDINGS @ "Top 10" sites	54.3%				53.5%			
Total PARTICIPATING VISITORS @ "Top 10" sites	42,951				55,989			
% PARTICIPATING VISITORS @ "Top 10" sites	54.5%				53.8%			

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	564				773			
% ZODIAC LANDINGS @ "Top 15" sites	65.1%				66.6%			
Total PARTICIPATING VISITORS @ "Top 15" sites	53,914				70,757			
% PARTICIPATING VISITORS @ "Top 15" sites	68.4%				68.0%			

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	631				864			
% ZODIAC LANDINGS @ "Top 20" sites	72.9%				74.4%			
Total PARTICIPATING VISITORS @ "Top 20" sites	59,480				73,229			
% PARTICIPATING VISITORS @ "Top 20" sites	75.4%				70.4%			

**Appendix 4: ZODIAC LANDINGS and VISITORS BY ZODIAC LANDINGS, Antarctic Peninsula, 1989-2003**

SITE	99-03			89-03		
	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing	Zodiac Landings	Rank (1-25)	Visitors by Zodiac Landing

**VISITORS PARTICIPATING IN ZODIAC LANDINGS, BY SUBAREA**

Subarea	99-03 Zodiac Landings	Rank (1-25)	89-03 Zodiac Landings	Rank (1-25)
SO	5,552	1.5%	12,868	1.6%
EI	6,266	1.7%	15,216	1.8%
SH	125,614	34.6%	324,850	39.4%
NE	37,143	10.2%	75,416	9.2%
NW	151,027	41.6%	314,244	38.1%
SW	37,163	10.2%	81,332	9.9%
TOTAL, visitors participating in zodiac landings	362,765		823,926	

**ZODIAC LANDINGS AND PARTICIPATING VISITORS AT MOST HEAVILY VISITED SITES**

**"Top 10" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 10" sites	2,148	4,956
% ZODIAC LANDINGS @ "Top 10" sites	51.4%	52.1%
Total PARTICIPATING VISITORS @ "Top 10" sites	193,836	440,538
% PARTICIPATING VISITORS @ "Top 10" sites	53.4%	53.5%

**"Top 15" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 15" sites	2,712	6,141
% ZODIAC LANDINGS @ "Top 15" sites	64.8%	64.6%
Total PARTICIPATING VISITORS @ "Top 15" sites	239,918	557,093
% PARTICIPATING VISITORS @ "Top 15" sites	66.1%	67.6%

**"Top 20" Sites by LDG**

Total ZODIAC LANDINGS @ "Top 20" sites	3,008	6,919
% ZODIAC LANDINGS @ "Top 20" sites	71.9%	72.8%
Total PARTICIPATING VISITORS @ "Top 20" sites	271,267	615,057
% PARTICIPATING VISITORS @ "Top 20" sites	74.8%	74.6%



# Zodiac landings by tourist ships in the Antarctic Peninsula region, 1989–99

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**ABSTRACT.** This paper examines the location, intensity, and frequency of zodiac landings by passengers on tourist ships in the Antarctic Peninsula region during 10 seasons, 1989/90 through 1998/99. In this period, the number of passengers increased 307%, from 2460 to 10,013. Zodiac landings have occurred at 165 Peninsula region sites, concentrating in the South Shetland Islands and the northwestern part of the Peninsula. From 1989/90 to 1998/99, the number of zodiac landings in the Peninsula region increased 423%, from 164 to 858. The most visited sites are identified, as are sites experiencing increases in the second half of this 10-year period. The 10 and 20 sites experiencing the most zodiac landings each season consistently account for approximately 55% and 75% of that season's landings, respectively. Based on 1998/99 data, sites with high or medium species diversity or with high or moderate sensitivity to potential environmental disturbance account for a significant percentage of landings. Recommendations are presented for improving the assessment of potential environmental impacts at zodiac landing sites, and for improved methods of reporting site visits by the tour operators involved.

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## Introduction

Tour ships have been visiting Antarctica for more than 30 years. Most visits occur during the austral summer, between November and February, when conditions allow approaches to the continent's marine fringe. Since its inception, Antarctic tourism has involved bringing visitors ashore to view wildlife or to visit geographical or historical features. This is accomplished by use of inflatable, rubber landing craft known as zodiacs.

Beginning with the 1989/90 Antarctic tour season, the US National Science Foundation Office of Polar Programs (NSF) has collected data on Antarctic tourism, based entirely on site-visit reports submitted by Antarctic tour operators (NSF 1990–99). Both US-based and non-US-based tour operators submit reports to NSF, whether or not they are members of the International Association of

Antarctic Tour Operators (IAATO), an industry trade group established to self-monitor tourism activities in the Antarctic.

The NSF compilations list more than 250 sites visited by tourists in the Antarctic Peninsula–Dronning Maud Land–South Georgia–Falklands Islands region. The compilations indicate sites where visitor activities take place, the types of activities taking place, the frequency of such activities, and the number of visiting passengers who are involved. Although yachts have visited Antarctica since 1966 (Rubin 1996), the NSF compilations do not record either visits by individual yachts to tourist sites on the Antarctic Peninsula, or the number of yacht passengers visiting particular sites.

Interest in the potential environmental impacts of tourism and tourist visitation has been spurred by the Protocol on Environmental Protection to the Antarctic Treaty, which entered into force in January 1998. The Protocol deals with governmental and non-governmental activities, including tourism, and intends to ensure that such activities do not have adverse impacts on the Antarctic environment. These impacts may be short- or long-term, immediate or cumulative. Under the Protocol, environmental concerns must be assessed and evaluated in advance, before any human activity may proceed (Naveen 1996).

Recommendation XVIII-1, adopted at the 1994 Antarctic Treaty Consultative Meeting in Kyoto, Japan,

establishes Guidance for Visitors to the Antarctic and Guidance for those Organising and Conducting Tourism and Non-governmental Activities in the Antarctic (ATCPs 1994). The guidance intends that all Antarctic visitors — whether passengers on tour ships or the ship's expedition staff, officers, and crew — be aware of relevant aspects of the Treaty and Protocol, and emphasizes that everyone must comply fully with national laws and regulations applicable to their activities (ATCPs 1994).

Environmental changes may occur naturally, flow from human activities, or result from other direct, consequential, synergistic, and cumulative effects (Benninghoff and Bonner 1985; Abbott and Benninghoff 1990). Because a prime concern of the Protocol is whether environmental changes may occur as a result of visitor use, the authors are guided by the view that overall numbers of visitors and tour ships are less important than:

- *where* visitors make landings;
- *how many* visitors go ashore during zodiac landings (that is, the intensity of use of landing sites); and
- *how frequently* zodiac landings occur

(Benninghoff and Bonner 1985; Abbott and Benninghoff 1990; Trivelpiece 1991; Naveen 1996; Emslie 1997; Naveen 1997a). This paper reviews the landings data in the NSF compilations to ascertain what patterns of use of visitor sites have occurred in the region of the Antarctic Peninsula during the period 1989–99, and analyzes how tourist visitation relates to the characteristics of the sites being visited.

In examining these factors, the authors rely on descriptive information and census data that have been collected between 1994 and 2000 as part of the Antarctic Site Inventory, a long-term monitoring project. Since its inception, the Inventory has used opportunistic ship visits to examine the physical features, flora, and fauna of sites in the Antarctic Peninsula region that are visited by ship-based tourists. A prime objective of the Inventory is to develop baselines that can be used to detect possible changes in the physical and biological variables monitored by the project. Site visits are achieved by placing Inventory researchers aboard expedition tour ships at key census times each austral spring and summer, coinciding with the peak of penguin egg-laying (for appropriate nest censuses) and the peak of penguin chick-crèching (for appropriate chick censuses). Site visits and aerial photo-documentation also are undertaken in cooperation with the Royal Navy ice patrol vessel HMS *Endurance* (Naveen 1996, 1997a).

### Methods

To examine zodiac landing patterns, the Antarctic Peninsula region was divided into the six sub-areas adopted by the Inventory (Naveen 1996, 1997a, 1997b; Naveen and others 2000), the designations of which are:

- South Orkneys (SO), including Laurie, Coronation, and Signy islands;
- Elephant Island and nearby islands (EI);
- South Shetland Islands (SH), including Deception, Low, and Smith islands;

- Northeast Antarctic Peninsula (NE), from Cape Dubouzet (63°16'S, 64°00'W) and Joinville Island (63°15'S, 55°45'W) to James Ross Island (64°10'S, 57°45'W);
- Northwest Antarctic Peninsula (NW), from Cape Dubouzet to the northern end of the Lemaire Channel (65°04'S, 63°57'W); and
- Southwest Antarctic Peninsula (SW), from the northern end of the Lemaire Channel to the northern part of Marguerite Bay (68°18'S, 67°11'W).

Throughout this paper, 'zodiac landing' and 'landing' both refer to instances of passengers being carried by zodiacs to a particular site where these passengers actually set foot ashore. 'Visitors' refers to the number of passengers participating in these zodiac landings who set foot ashore.

The data used for this paper excluded from the NSF compilations sites occurring outside of the Antarctic Peninsula region and the visits not involving zodiac landings (that is, zodiac cruises without shore landings, helicopter landings and overflights, scuba and snorkeling, ice walking, and camping). This yielded a total of 165 different sites where visitors made zodiac landings in this region during 1989–99.

Between November 1994 and February 2000, data were collected for the Antarctic Site Inventory regarding the presence or absence of nesting species of penguins and flying birds, wallows of southern elephant seals, and large patches or beds of lichens and mosses at 59 locations (Naveen 1996, 1997a). These include the most heavily visited sites in the Peninsula region— whether calculated by zodiac landings or visitors — in the 10 seasons between 1989/90 and 1998/99. These presence/absence data were used to rank zodiac landing sites according to the number of faunal species and major floral groups recorded, according to whether nests, wallows, and floral groups may be easily accessed by tour ship visitors during a regular zodiac landing.

### National Science Foundation data

As noted in Table 1, the annual number of shipborne Antarctic tourists reported to NSF/OPP increased from 2460 in the 1989/90 season to 10,013 in the 1998/99 season, an increase of 307%. Concomitantly, over the same period, the number of zodiac landings increased from 164 to 858, a 423% increase. Virtually all Antarctic zodiac landings occur in the Peninsula region.

Since the 1993/94 season, the number of Antarctic tour ships has increased from 11 to 15. The number of seasonal departures from ports to the Antarctic has ranged from 65 in the 1993/94 season to 102 in the 1998/99 season, reaching a peak of 113 in the 1995/96 season (Fig. 1).

In 1994/95 the Antarctic tourism industry experienced an influx of small capacity vessels, carrying maximum passenger loads of 75 or fewer passengers (see Table 2). During the six seasons from 1993/94 to 1998/99, the number of medium capacity vessels (divided into those carrying 76–100 passengers and those carrying 101–180 passengers) and large capacity vessels (carrying 181 or

Table 1. Antarctic tour ship passengers and zodiac landings, 1989/90 to 1998/99. NA = not available.

Season	Number of tour ship passengers	Landings, Peninsula + Ross Sea	Landings in Ross Sea region	Landings in Peninsula region	Percentage of landings in Peninsula region
89/90	2460	NA	NA	164	NA
90/91	4698	NA	NA	161	NA
91/92	7103	NA	NA	327	NA
92/93	6166	392	44	348	88.8
93/94	7597	494	6	488	98.8
94/95	8090	716	12	704	98.3
95/96	9212	794	10	784	98.7
96/97	7322	814	39	775	95.2
97/98	9473	750	36	714	95.2
98/99	10,013	884	26	858	97.1

more passengers) has remained relatively constant (Table 2).

Considering the entire complement of Antarctic tour ships, there has been a general increase in the number of departures per ship and in zodiac landings per departure during the six seasons from 1993/94 to 1998/99 (Fig. 2). The 1996/97 peak of 8.0 departures per ship was more than two departures per trip higher than the mean of 5.9 departures per ship in 1993/94. However, it is not apparent from visitation data compiled by the NSF whether this increase represents a reduction in average trip length or a lengthening of the Antarctic tour season (NSF 1990–99). In the two most recent seasons analyzed, 1997/98 and 1998/99, the number of departures per ship declined, reaching a mean of 6.8 in the latter season. The number of zodiac landings per departure reached a peak of 8.7 in 1998/99, more than one zodiac landing per departure higher than at the start of the six-season period.

#### Where landings occur in the Antarctic Peninsula region

##### Geographical distribution

The distribution of visitor landings has been relatively

consistent throughout the 10-season period of this study (Table 3). Most visits were concentrated in the South Shetland Islands (43.2% of all landings) and the northwestern part of the Peninsula (35.9% of all landings). During the decade, there were non-significant increases in visitation to three sub-areas — the northeast Peninsula (7.1% to 7.9%), the northwest Peninsula (35.8% to 36.0%), and the southwest Peninsula (9.2% to 10.6%).

##### Most visited sites

The 25 sites receiving the greatest number of zodiac landings during the 10 years of this study, along with comparisons to the 'Top 25' rankings in each half of this period, are shown in Table 4.

Nine sites — Aitcho Islands (SH), Baily Head (SH), Hannah Point (SH), Penguin Island (SH), Paulet Island (NE), Cuverville Island (NW), Port Lockroy (NW), Vernadskiy Station (SW), and Pléneau Island (SW) — were ranked among the top 25 sites for both halves of the decade, but ranked higher in the more recent (1994–99) time frame.

Six sites fell out of the top 25 ranking between 1989–94 and 1994–99: Ferraz Station (SH); Frei/Marsh Station (SH); Jubany Station (SH); Lion's Rump, King George

Table 2. Capacities of Antarctic tour ships over six seasons, 1993/94 to 1998/99. Small capacity ships =  $\leq 75$  passengers; medium capacity ships subdivided into 76–100 passengers and 101–180 passengers; large capacity ships =  $\geq 181$  passengers.

Season	Small ships	Departures	Mean departures	Medium ships ( $\leq 100$ )	Departures	Mean departures
93/94	1	7	7.0	3	20	6.7
94/95	4	27	6.8	2	20	10.0
95/96	6	45	7.5	2	22	11.0
96/97	5	39	7.8	2	22	11.0
97/98	4	31	7.8	2	19	9.5
98/99	4	28	7.0	3	30	10.0
Season	Medium ships ( $\geq 101$ )	Departures	Mean departures	Large ships	Departures	Mean departures
93/94	5	33	6.6	2	5	2.5
94/95	7	45	6.4	1	2	2.0
95/96	6	42	7.0	1	4	4.0
96/97	6	43	7.2	0	0	0.0
97/98	5	36	7.2	2	6	3.0
98/99	7	40	5.7	1	4	4.0

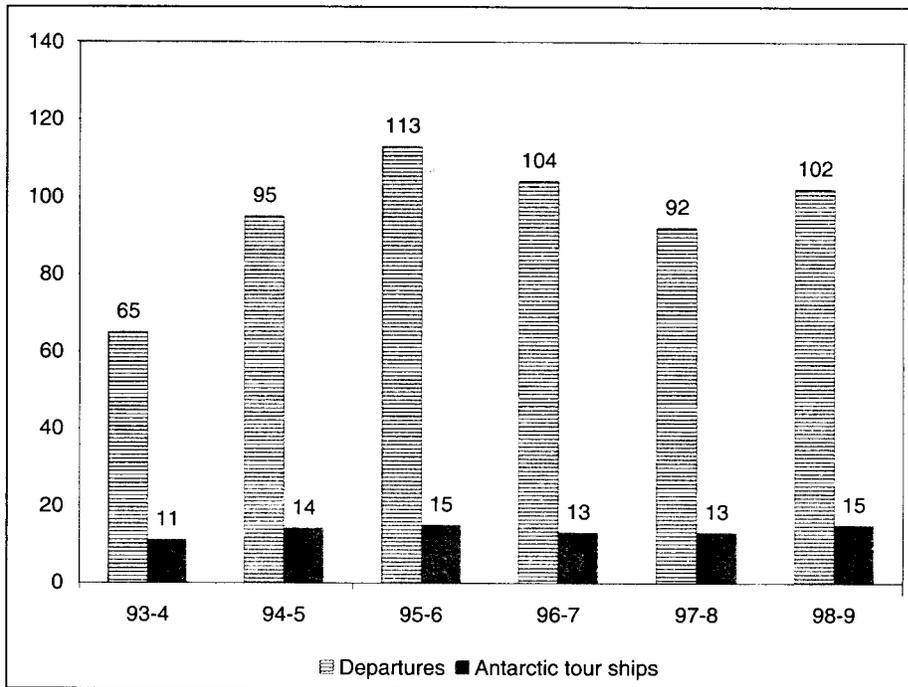


Fig. 1. Overall number of Antarctic tour ships and departures, 1993/94 to 1998/99.

Island (SH); Telefon Bay, Deception Island (SH); and Torgersen Island, Arthur Harbor (NW).

Six sites entered the list of 25 busiest sites, by number of zodiac landings, in the 1994–99 period: Bellingshausen Station (SH); Yankee Harbor, Greenwich Island (SH); Brown Bluff (NE); Georges Point, Rongé Island (NW); Neko Harbor (NW); and Paradise Bay (NW).

The most heavily visited sites in terms of visitors going ashore during zodiac landings are similar (Table 5). Nine sites — Baily Head (SH), Half Moon Island (SH), Hannah Point (SH), Penguin Island (SH), Yankee Harbor (SH),

Neko Harbor (NW); Paradise Bay (NW); and Pléneau Island (SW).

**Site recruitment**

In each season there are zodiac landings at sites previously unvisited by tourist ships. Assuming the 1989/90 season as the baseline, 130 ‘new’ sites have been added as venues for zodiac landings from the 1990/91 season through the 1998/99 season (Table 6). The rate of ‘recruitment’ of these new sites reached its peak during the middle of the decade (between 1994–95 and 1996–97), but it is now declining.

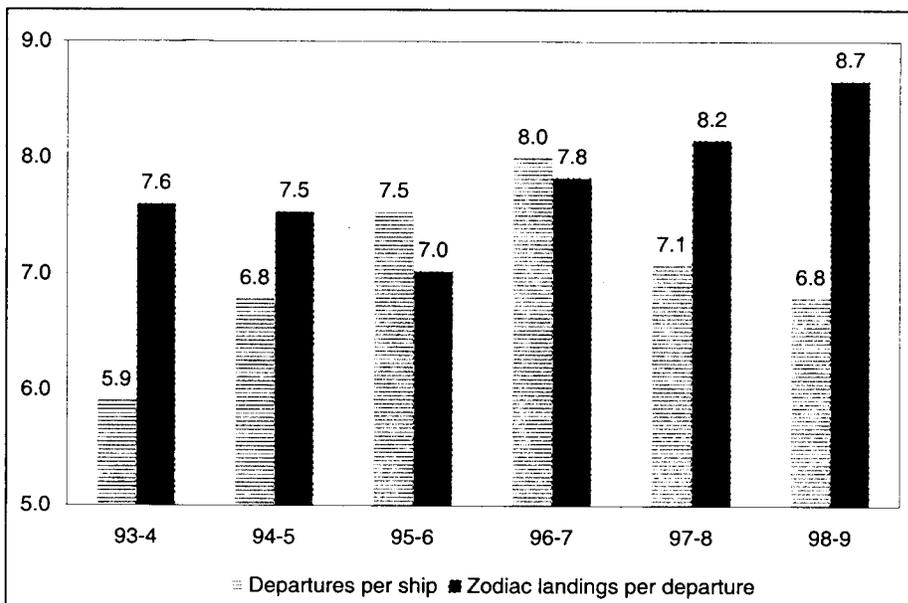


Fig. 2. Departures per Antarctic tour ship, and number of landings per departure, 1993/94 to 1998/99.

Paulet Island (NE), Couverville Island (NW), Vernadskiy Station (SW), and Petermann Island (SW) — were ranked in the top 25 for both halves of the decade, but ranked higher in the latter half.

Six sites fell out of the top 25 ranking, by number of visitors, between 1989–94 and 1994–99: Shingle Cove, Coronation Island (SO); Ferraz Station (SH); Frei/Marsh Station (SH); Jubany Station (SH); Lion’s Rump, King George Island (SH); and Torgersen Island, Arthur Harbor (NW). And six sites joined the top 25 visitor sites in the 1994–99 period: Aitcho Islands (SH); Brown Bluff (NE); Georges Point, Rongé Island (NW);

**Sites visited each season**

During the 10 seasons analyzed, the number of known sites ‘available’ for zodiac landings in the Peninsula region has risen to 165, while the percentage of available sites visited each season has generally declined (Table 7). In the most recent four seasons examined, 1995/96 through 1998/99, there were visits to no more than 57.3% of available sites. In addition, in each season, a large number of sites in the Peninsula region are visited only once. During the 10 seasons, the percentage of available sites visited only once has been no less than

Table 3. Geographical distribution of Antarctic Peninsula region zodiac landings, 1989/90 to 1998/99.

Area	1989–99 landings	Percentage	1989–94 landings	Percentage	1994–99 landings	Percentage
SO	73	1.4	27	1.8	46	1.2
EI	84	1.6	32	2.2	52	1.4
SH	2301	43.2	654	44.0	1647	42.9
NE	409	7.7	106	7.1	303	7.9
NW	1911	35.9	532	35.8	1380	36.0
SW	544	10.2	137	9.2	407	10.6
Total	5322		1488		3835	

21.9% per season. In the last three seasons analyzed, the percentage of sites visited only once has ranged from 34.6% to 36.6%.

#### Intensity of visitor use

##### Numbers of landings and visitors

While the number of zodiac landings to the 165 sites in the Peninsula region increased 423% from 1989/90 to 1989/99, the number of visitors participating in zodiac landings at these 165 sites increased 321%, from 17,759 to 74,772 (Table 8).

The trends of the data (Fig. 3) suggest that numbers of landings and visitors, while continuing to rise, are leveling off ( $y = 24,894 \ln(x) + 8680.1$ ,  $R^2 = 0.892$  (for visitors);  $y = 339.46 \ln(x) + 19.567$ ,  $R^2 = 0.8674$  (for landings)). While the number of zodiac landings and participating visitors has increased, the average number of passengers participating in each zodiac landing has declined (Table 9).

##### Concentration of zodiac landings

Each season, the 10 sites with the most number of landings consistently account for more than 55% of that season's landings and 51% of that season's visitors (Table 10). Similarly, the 20 sites with the most number of landings consistently represent more than 75% of each season's landings and 77% of that season's visitors (Table 10).

##### Visitation to diverse and environmentally sensitive sites

Visits to the Antarctic Peninsula region are attracted disproportionately to sites with features that may have particular vulnerabilities to heavy visitor traffic, in particular sites with a high/medium diversity of fauna and flora and sites where resident fauna and flora are easily accessed by visitors.

Based on the Antarctic Site Inventory surveys, sites were ranked according to species diversity and potential sensitivity to environmental disturbances (Table 11). Sites

Table 4. Most visited Antarctic Peninsula region sites in a 10-year period, by number of zodiac landings, 1989/90 to 1998/99. \* = tie for position.

Site	Area	1989–99 landings	1989–99 rank	1989–94 rank	1994–99 rank
Whalers Bay, Deception Island	SH	425	1	1	1
Cuerville Island	NW	359	2	4	2
Port Lockroy	NW	350	3	5	3
Pendulum Cove, Deception Island	SH	300	4	3	5
Hannah Point, Livingston Island	SH	290	5	8	4
Petermann Island	SW	278	6	6*	6
Half Moon Island	SH	263	7	6*	7
Almirante Brown Station	NW	259	8	2	8
Paulet Island	NE	196	9	11	10
Arctowski Station, King George Island	SH	166	10	10	13
Neko Harbor, Andvord Bay	NW	152	11	–	9
Baily Head (including Rancho Point)	SH	149	12	13	12
Waterboat Point (Gonz. Videla Station)	NW	148	13	9	16
Aitcho Islands	SH	147	14	25*	11
Penguin Island	SH	118	15	18	14
Palmer Station, Arthur Harbor	NW	104	16	12	19*
Pléneau Islands	SW	89	18	23*	17
Paradise Bay (nonspecifically described)	NW	88	17	–	15
Hope Bay (Esperanza Station)	NE	87	19	14	19*
Ak. Vernadskiy (ex-Faraday) Station	SW	72	20	23*	18
Telefon Bay, Deception Island	SH	65	21	15	–
Yankee Harbor, Greenwich Island	SH	60	22	–	21
Point Lookout, Elephant Island	EI	59	23	19	25*
Torgersen Island, Arthur Harbor	NW	57	24	16	–
Portal Point, Charlotte Bay	NW	56	25	21	25*

Table 5. Most visited Antarctic Peninsula region sites in a 10-year period, by number of visitors participating in zodiac landings, 1989/90 to 1998/99.

Site	1989-99 landings	1989-99 rank	1989-94 rank	1994-99 rank
Whalers Bay, Deception Island	35,325	1	1	1
Port Lockroy	34,189	2	2	2
Half Moon Island	28,541	3	5	4
Cuerville Island	27,801	4	7	3
Pendulum Cove, Deception Island	26,030	5	6	6
Hannah Point, Livingston Island	24,444	6	10	5
Petermann Island	24,082	7	8	7
Almirante Brown Station, Paradise Bay	22,381	8	3	9
Waterboat Point (Gonz. Videla Station)	21,735	9	4	10
Paulet Island	18,809	10	11	8
Arctowski Station, King George Island	14,750	11	9	14
Baily Head (including Rancho Point)	12,176	12	14	13
Aitcho Islands	11,219	13	-	11
Palmer Station, Arthur Harbor	10,790	14	12	18
Hope Bay (Esperanza Station)	9897	15	13	17
Neko Harbor, Andvord Bay	9853	16	-	12
Penguin Island	9362	17	20	15
Paradise Bay (nonspecific)	6981	18	-	16
Point Lookout, Elephant Island	6589	19	17	21
Yankee Harbor, Greenwich Island	6014	20	25	20
Pléneau Island	5557	21	-	19
Torgersen Island, Arthur Harbor	5299	22	16	-
Telefon Bay, Deception Island	5274	23	18	24
Ak. Vernadskiy (ex-Faraday) Station	5123	24	24	22
Ferraz Station, King George Island	4890	25	19	-

Table 6. Recruitment of Antarctic Peninsula region zodiac landing sites, 1989/90 to 1998/99.

Season	Zodiac landing sites visited for the first time	Percentage visits during season to 'new' sites
89/90	35	100.0
90/91	7	21.9
91/92	12	27.3
92/93	14	28.0
93/94	16	25.0
94/95	21	28.0
95/96	19	26.8
96/97	18	22.2
97/98	11	15.5
98/99	12	14.1

with 10 or more faunal species or major floral groups were considered as sites with high species diversity; sites with 5-9 faunal species or major floral groups were ranked as having medium species diversity; and sites with 0-4 faunal species were considered to have low species diversity.

Five high diversity sites were identified: Hannah Point (SH), Penguin Island (SH), the Aitcho Islands (SH), Cuerville Island (NW), and Fort Point (SH). Fifteen medium diversity sites were identified: Arctowski Station (SH), Astrolabe Island (NW), Baily Head (SH), Brown Bluff (NE), Half Moon Island (SH), Heroína Island (NE), Port Lockroy (NW), Point Lookout (EI), Orne Island (NW), Paulet Island (NE), Petermann Island (SW), Pléneau Island (SW), Turret Point (SH), Whaler's Bay (SH), and Yankee Harbor (SH). The other 39 sites visited by the

Table 7. Utilization of available and known Antarctic Peninsula region zodiac landing sites, 1989/90 to 1998/99.

Season	Total available zodiac landing sites	Sites visited	Percentage of available sites visited	Sites visited only once	Percentage sites visited only once
89/90	35	35	100.0	9	25.7
90/91	42	32	76.2	7	21.9
91/92	54	44	81.5	12	27.3
92/93	68	50	73.5	16	32.0
93/94	84	64	76.2	23	35.9
94/95	105	75	71.4	24	32.0
95/96	124	71	57.3	20	28.2
96/97	142	81	57.0	28	34.6
97/98	153	71	46.4	26	36.6
98/99	165	85	51.5	30	35.3

Table 8. Visitors participating in Antarctic Peninsula region zodiac landings, 1989/90 to 1998/99. NA = not available.

Season	Visitors participating in landings	Percentage increase/decrease
89/90	17,759	NA
90/91	19,001	7
91/92	38,828	104
92/93	27,789	-28.4
93/94	50,035	80.1
94/95	52,610	5.2
95/96	61,345	16.6
96/97	54,286	-11.5
97/98	66,387	22.3
98/99	74,772	12.6
1989-99	462,812	321.0

Thus sites with high/medium species diversity accounted for approximately 50% of zodiac landings and visitors, an attraction that is highly significant ( $\chi^2 = 581, p < .001$  with respect to landings;  $\chi^2 = 50,698, p < .001$  with respect to visitors), supporting the conventional wisdom that visitors come to the Peninsula to see a diversity of wildlife.

Because of the physical variation in landing sites, species diversity does not necessarily equate to visitors attaining relatively close views of fauna and flora. Using the presence/absence data as a base, the question of whether disproportionate numbers of zodiac landings occur where visitors may attain this close proximity was investigated. For this purpose, sites were ranked according to ease of access to nests (flying birds as well as penguins), elephant seal wallows, and large patches or beds of sensitive flora such as lichens and mosses.

Sites with five or more of these proximity tallies were considered to be highly sensitive to potential disturbances by visitors. Sites with 3-4 proximity tallies were rated moderately sensitive to potential disturbances. And sites with 0-2 proximity tallies were considered to have low sensitivity to potential disturbances.

Four highly sensitive sites were identified: Hannah Point (SH), Penguin Island (SH), the Aitcho Islands (SH), and Turret Point (SH). Nine moderately sensitive sites

Inventory were recorded as having low species diversity.

During the 1998/99 season, 85 sites in the Peninsula region experienced zodiac visitor landings. The five high diversity sites comprised only 5.9% of sites visited that season, but attracted 18.2% of all zodiac landings and 14.3% of all visitors (Table 12). The 15 medium diversity sites comprised 17.6% of the 85 sites visited, but attracted 39.4% of all zodiac landings and 35.5% of all visitors.

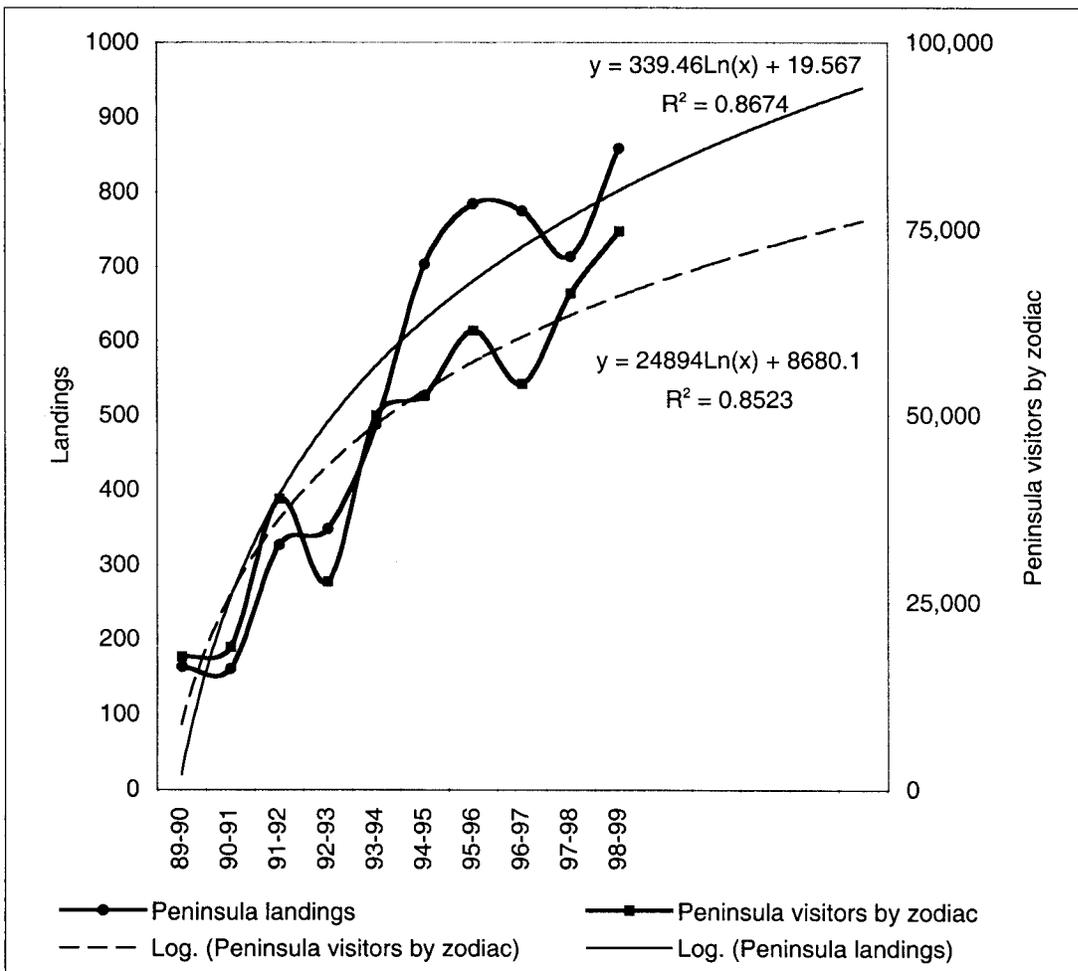


Fig. 3. Zodiac landings and visitor trends in the Antarctic Peninsula region.

Table 9. Mean number of passengers per Antarctic Peninsula region zodiac landing, 1989/90 to 1998/99.

Season	Peninsula region zodiac landings	Passengers participating in landings	Mean passengers per landing
89/90	164	17,759	108.3
90/91	161	19,001	118.0
91/92	327	38,828	118.7
92/93	348	27,789	79.9
93/94	488	50,035	102.5
94/95	704	52,610	74.7
95/96	784	61,345	78.2
96/97	775	54,286	70.0
97/98	714	66,387	93.0
98/99	858	74,772	87.1
Overall (1989–99)	5323	462,812	86.9

were identified: Brown Bluff (NE), Fort Point (SH), Gourdin Island (NW), Orne Island (NW), Paulet Island (NE), Petermann Island (SW), Pléneau Island (SW), Georges Point, Rongé Island (NW), and Waterboat Point (NW). The other 46 sites visited by the Inventory fell into the low category.

In the 1998/99 season, the four sites identified as highly sensitive to potential disturbances by visitors comprised 4.7% of the 85 sites visited, but attracted 11.8% of all zodiac landings and 9.6% of all visitors (Table 12). The nine sites identified as moderately sensitive to potential disturbances by visitors comprised 10.6% of the 85 sites visited that season, but attracted 15.4% of landings and 14.6% of all visitors. Thus sites with high/moderate

sensitivity to visitor disturbances by visitors accounted for more than 24% of all zodiac landings and visitors to the Peninsula region, an attraction that is highly significant ( $\chi^2 = 124, p < .001$  with respect to landings;  $\chi^2 = 11,140, p < .001$  with respect to visitors). This also suggests that visitors either come to the Peninsula to see wildlife that is easily accessed, or that the *modus operandi* of zodiac landing procedures and expedition staff guidance makes wildlife easily accessible to visitors.

When the 1998/99 season is analyzed in terms of sites experiencing two or more zodiac visitor landings — eliminating the 30 sites visited only once — it was found that the highly significant attraction to diverse and sensitive sites is maintained. Seventeen sites with high/medium

Table 10. Concentration of visitor activity at the most heavily visited Antarctic Peninsula region sites, by number of zodiac landings, 1989/90 to 1998/99.

Season	Zodiac landings, Peninsula region	Landings at 'top 10' sites by number of landings	Landings at 'top 20' sites by numbers of landings
89/90	164	94	142
90/91	161	101	144
91/92	327	193	283
92/93	348	197	281
93/94	488	282	394
94/95	704	416	558
95/96	784	435	626
96/97	775	435	604
97/98	714	413	557
98/99	858	478	649
Season	Zodiac visitors, Peninsula region	Visitors at 'top 10' sites by number of landings	Visitors at 'top 20' sites by number of landings
89/90	17,759	10,322	15,395
90/91	19,001	11,956	17,663
91/92	38,828	23,741	33,687
92/93	27,789	16,706	22,626
93/94	50,035	30,111	42,949
94/95	52,610	30,991	41,767
95/96	61,345	35,823	50,788
96/97	54,286	28,170	41,832
97/98	66,387	39,666	52,666
98/99	74,772	42,855	58,846

Table 11. Species diversity and environmental sensitivity tallies at 59 sites visited by the Antarctic Site Inventory, 1989–99. Species diversity key (as per counts of species present): ≥10 tallies = high species diversity; 5–9 = medium species diversity; 0–4 = low species diversity. Site sensitivity key (as per counts of on-site penguin/flying bird nests, elephant seal wallows, large patches/beds of lichens and moss that may be accessed easily): ≥5 tallies = high sensitivity to potential disturbances; 3–4 = moderate sensitivity to potential disturbances; 0–2 = low sensitivity to potential disturbances.

Site	Area	Coordinates	Species diversity Tallies		Proximity/sensitivity tallies	
Aitcho Islands	SH	62°24'S 59°47'W	10	High	6	High
Almirante Brown Station	NW	64°53'S 62°52'W	4	Low	1	Low
Arctowski Station	SH	62°15'S 58°51'W	7	Medium	1	Low
Astrolabe Island	NW	63°17'S 58°40'W	7	Medium	1	Low
Baily Head, Deception Island	SH	62°58'S 60°30'W	5	Medium	2	Low
Bald Head	NE	63°38'S 57°36'W	0	Low	0	Low
B. O'Higgins Station	NW	63°19'S 57°54'W	1	Low	1	Low
Brown Bluff	NE	63°32'S 56°55'W	8	Medium	3	Moderate
Crystal Hill	NE	63°39'S 57°44'W	0	Low	0	Low
Cuverville Island	NW	64°41'S 62°38'W	10	High	1	Low
Danco Island	NW	64°44'S 62°37'W	1	Low	1	Low
Devil Island	NE	63°48'S 57°17'W	4	Low	2	Low
Dorian Bay/Damoy Point	NW	64°49'S 63°30'W	2	Low	2	Low
D'Urville Monument	NE	63°31'S 58°11'W	2	Low	2	Low
Eden Rocks	NE	63°29'S 55°40'W	1	Low	1	Low
Ferraz Station	SH	62°10'S 58°48'W	2	Low	0	Low
Fish Island	SW	66°02'S 65°25'W	2	Low	2	Low
Fort Point, Greenwich Island	SH	62°43'S 59°34'W	10	High	3	Moderate
Foyn Harbor	NW	64°33'S 62°01'W	0	Low	0	Low
Goudier Island	NW	64°50'S 63°30'W	2	Low	2	Low
Gourdin Island	NW	63°12'S 57°18'W	4	Low	4	Moderate
Half Moon Island	SH	62°36'S 59°55'W	8	Medium	2	Low
Hannah Point	SH	62°39'S 60°37'W	12	High	9	High
Heróina Island	NE	63°24'S 54°36'W	7	Medium	2	Low
Hope Bay	NE	63°23'S 57°00'W	1	Low	1	Low
Hydrurga Rocks	NW	64°08'S 61°37'W	4	Low	1	Low
Jonassen Island	NE	63°33'S 56°40'W	3	Low	1	Low
Jubany Station	SH	62°14'S 58°38'W	2	Low	1	Low
Port Lockroy, Wiencke Island	NW	64°49'S 63°30'W	6	Medium	2	Low
Pt. Lookout, Elephant Island	EI	61°17'S 55°13'W	6	Medium	2	Low
Marambio Station	NE	64°13'S 56°38'W	0	Low	0	Low
Melchior Island	NW	64°19'S 62°57'W	0	Low	0	Low
Mikklesen Harbor	NW	63°54'S 60°47'W	1	Low	1	Low
Neko Harbor	NW	64°50'S 62°33'W	3	Low	2	Low
Orcadas Station	SO	60°45'S 44°43'W	3	Low	0	Low
Orne Island	NW	64°40'S 62°40'W	7	Medium	3	Moderate
Paulet Island	NE	63°35'S 55°47'W	8	Medium	3	Moderate
Pendulum Cove	SH	62°56'S 60°36'W	0	Low	0	Low
Penguin Island	SH	62°06'S 57°54'W	10	High	7	High
Petermann Island	NW	65°10'S 64°10'W	7	Medium	4	Moderate
Pléneau Island	SW	65°06'S 64°04'W	8	Medium	3	Moderate
Portal Point	NW	64°30'S 61°46'W	0	Low	0	Low
Pourquoi-pas Island	SW	67°41'S 67°28'W	4	Low	1	Low
Prospect Point	SW	66°01'S 65°21'W	0	Low	0	Low
Robert Point	SH	62°28'S 59°23'W	4	Low	2	Low
Georges Pt., Rongé Island	NW	64°40'S 62°40'W	3	Low	3	Moderate
Rum Cove	NE	64°06'S 58°25'W	0	Low	0	Low
Penguin Pt., Seymour Island	NE	64°19'S 56°43'W	1	Low	1	Low
Snow Hill Island	NE	64°28'S 57°12'W	0	Low	0	Low
Sprightly Island	NW	64°17'S 61°04'W	1	Low	1	Low
Telefon Bay	SH	62°56'S 60°40'W	0	Low	0	Low
Turret Point, King George Is.	SH	62°05'S 57°55'W	9	Medium	5	High
Vernadsky Station	SW	65°15'S 64°10'W	0	Low	0	Low
View Point	NE	63°33'S 57°22'W	0	Low	0	Low
Waterboat Point	NW	64°49'S 62°51'W	3	Low	3	Moderate
Whalers Bay	SH	62°59'S 60°34'W	5	Medium	1	Low
Point Wild, Elephant Island	EI	61°06'S 54°52'W	2	Low	1	Low
Yalour Island	SW	65°14'S 64°10'W	3	Low	1	Low
Yankee Harbor	SH	62°32'S 59°47'W	6	Medium	2	Low

Table 12. Antarctic Peninsula region site diversity and intensity of zodiac landings, and site sensitivity to environmental disturbances and intensity of zodiac landings, 1989–99.

	Number of sites		Landings		Visitors	
High diversity	5	(5.9%)	156	(18.2%)	12,523	(14.3%)
Medium diversity	15	(17.6%)	338	(39.4%)	30,974	(35.5%)
Low diversity	65	(76.5%)	364	(42.4%)	43,798	(50.2%)
Total	85	(100%)	858	(100.0%)	87,295	(100.0%)
	Number of sites		Landings		Visitors	
High sensitivity	4	(4.7%)	101	(11.8%)	8389	(9.6%)
Moderate sensitivity	9	(10.6%)	132	(15.4%)	12,725	(14.6%)
Low sensitivity	72	(84.7%)	625	(72.8%)	66,181	(75.8%)
Total	85	(100.0%)	858	(100.0%)	87,295	(100.0%)

species diversity were visited, representing 30.9% of the 55 sites visited more than once, and accounting for 59.5% of the zodiac landings ( $\chi^2 = 320, p < .001$ ) and 59.7% of the visitors ( $\chi^2 = 28,271, p < .001$ ) at these sites. It was also found that 12 sites with high/moderate sensitivity to potential disturbances by visitors were among these 55 sites, representing 21.8% of the sites, and accounting for 28.1% of the zodiac landings ( $\chi^2 = 33, p < .001$ ) and 29.0% of the visitors ( $\chi^2 = 2,721, p < .001$ ).

#### Frequency of visitation

This study also examined how the frequency of zodiac landings may have changed, focusing on the 10 most heavily visited sites, by number of zodiac landings, in the 1998/99 season. Assuming that the shipborne tour season lasts approximately 100 days — November 15 to March 1 — it was discovered that the frequency of zodiac landings in the 1998/99 season was an average of one visit every 2.25 days, compared to an average of one visit every 22.75 days in the 1989/90 season (Table 13). During the peak of each season, certain sites are likely to experience zodiac landings by more than one ship in a single day (NSF 1990–99; R. Naveen, personal observation).

#### Discussion and recommendations

Tourist visitation to the Antarctic Peninsula region appears likely to continue to grow in the short term. If the current trends continue, visitation would rise to more than 900 landings and in excess of 75,000 visitors by the 2003/04 season (Fig. 3). Despite the recruitment of 130 'new' zodiac landing sites in nine seasons, visitations concentrate at relatively few sites. In the 1998/99 season, the 10 sites with the highest number of zodiac landings account for 55.6% of all the landings in the Peninsula region and 57.3% of all visitors; the 20 sites with the highest number of zodiac landings account for 75.6% of all landings and 71.1% of all visitors (Table 10). In the 1998/99 season, only 51.5% of available sites were visited (85 of 165), and 36.5% of these sites (31 of 85) were visited only once (Table 7).

Zodiac landings may concentrate at relatively few sites, but the composition of this select group has changed in the 10 seasons examined. Eight sites joined the ranks of the 'top 25' in terms of either landings or visitors from the

first five seasons in the period (1989/90 to 1993/4) to the second five seasons (1994/95 to 1998/99) (Tables 4, 5). Even with this seasonal concentration of visitor activity, the number of sites experiencing zodiac landings reached a high of 85 in 1998/99 (Table 7).

Based on data for the 1998/99 season, zodiac landings also concentrate at sites with high or medium species diversity or with high or moderate sensitivity to potential environmental disturbance (Table 12). If this visitation trend continues, the question of whether the frequency and intensity of human visitation translates to actual disturbance of resident fauna and flora needs to be explored fully. As noted, the Protocol on Environmental Protection to the Antarctic Treaty is concerned with potential environmental impacts from human activities, including tourism, and irrespective of whether potential impacts may be short-term or long-term, immediate or cumulative (Naveen 1996).

In this regard, therefore, it may be important to compare the exact timing of zodiac landings in the Antarctic Peninsula region with respect to expected breeding chronologies of resident fauna at zodiac landing sites. In the short term, data on the exact length of visitors' time ashore during each zodiac landing presumably may be gleaned from tour operators' site-visit reports. But at present, these data are not a regular feature of the annual NSF compilations. Regarding the biological data, it may take a longer period of time for ongoing or new research initiatives to determine exact breeding chronologies of resident fauna at zodiac landing sites, with which the human visitation chronologies then may be compared.

To avoid extrapolations from other data sets or from unpublished information, it also would be useful to have seasonal tallies and summaries of the number of departures to both the Antarctic Peninsula and the Ross Sea, and the vessel capacities of each Antarctic tour ship reporting to NSF. Further, noting that IAATO strives to coordinate itineraries so 'no more than 100 people are ashore at any one time in any one place' (IAATO 1991), it may be important to know how many 100-passenger groups comprise a single zodiac landing, in the case of medium- or large-capacity vessels that carry more than 100 passengers on a single Antarctic departure.

Table 13. Frequency of zodiac landings at the 10 Antarctic Peninsula region sites with the most number of zodiac landings in 1998/99, with comparison to the 1989/90 season, assuming a 100-day season.

Site	Zodiac landings, 1998/99	Zodiac landings, 1989/90	Frequency of visits (days)	
			1998/99	1989/90
Port Lockroy (incl. Jougla Pt.)	75	7	1.3	14.3
Whalers Bay, Deception Island	69	17	1.4	5.9
Cuverville Island	55	8	1.8	12.5
Pendulum Cove, Deception Island	50	7	2.0	14.3
Hannah Point, Livingston Island	48	3	2.1	33.3
Neko Harbor, Andvord Bay	42	0	2.4	—
Petermann Island	38	6	2.6	16.7
Paulet Island	37	7	2.7	14.3
Half Moon Island	33	10	3.0	10.0
Aitcho Islands	31	2	3.2	50.0
Average number of days between visits			2.25	22.75

A final concern regarding the evaluation and assessment of potential environmental impacts at Peninsula region landing sites relates to yacht visits. As noted, the NSF compilations do not reflect either yacht visits to sites in the Antarctic Peninsula region, or the number of yacht passengers visiting particular sites. IAATO has encouraged yacht operators to join its association (NSF 1990–99), but, as yet, no coordinated mechanism exists to obtain potentially relevant data from the yachting portion of the Antarctic tourism industry.

There are a number of ways that site-visit reporting by tour operators may be improved. Tour operators continue to report sites that cannot be identified precisely as to actual location. This study combines landings data from eight sites (four pairs of two) because they appear to refer to the same location (Baily Head and Rancho Point; Damoy Point and Dorian Bay; Georges Point and Rongé Island; and Port Lockroy and Jougla Point). Of the remaining sites listed in the NSF compilations, 18 refer to broad geographic features or areas known to contain other regularly visited sites: Coronation Island; Laurie Island; Signy Island; Elephant Island; Deception Island; Fildes Peninsula; King George Island; Martel Inlet; Maxwell Bay; Charlotte Bay; Errera Channel, small peak; Melchior Islands; Paradise Bay; James Ross Island; Prince Gustav Channel; Seymour Island; Danger Islands; and Argentine Islands.

As new types of activities are added to the tourism experience in the Antarctic Peninsula region, it also would be helpful if site-visit reports and subsequent NSF compilations precisely noted which new activities are undertaken, where these activities take place, and how many visitors partake in them.

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