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# NORTHWEST (NW) Subarea

# SUBAREA MAP

# SITE DESCRIPTIONS (23)

- Almirante Brown Station Vicinity, Paradise Bay (ALMI)
- Astrolabe Island (ASTR)
- Bernardo O'Higgins Station (BERN)
- Cuverville Island (CUVE)
- Danco Island (DANC)
- Dorian Bay/Damoy Point (DORI)
- Foyn Harbor, Enterprise Is. (FOYN)
- Georges Point, Rongé Island (RONG)
- Gourdin Is. (GOUR)
- Gouvernøren Harbor (GOUV)
- Hydrurga Rocks (HYDR)
- Lecointe Island (LECO)
- Port Lockroy, Wiencke Island (LOCK)
- Melchior Islands (MELC)
- Mikklesen Harbor, Trinity Island (MIKK)
- Neko Harbor, Andvord Bay (NEKO)
- Orne Islands (ORNE)
- Portal Point (POPT)
- Priest Island (Goetschy Island), Peltier Channel (PRIE)
- Py Point (PYPT)
- Siffrey Point (SIFF)
- Sprightly Islands Vicinity (SPRI)
- Waterboat Point, Paradise Bay (WATE)

This Antarctic Site Inventory subarea extends from the Bransfield Strait to the Lemaire Channel. The southern portion is a stronghold for gentoo penguins — Cuverville Island (the largest known colony in the Peninsula), Danco Island, Neko Harbor, Jougla Point and Goudier Island in Port Lockroy, Damoy Point/Dorian Bay at the southern end of the Neumayer Channel, and Waterboat Point in Paradise Bay.

Keys:

For acronyms of Antarctic Site Inventory researchers, see Appendix 1 p. 39.

For codes relating to penguin/seabird census/population data, see Table 3, p. 49.



# Almirante Brown Station Vicinity, Paradise Bay (ALMI)

64°53'S, 62°52'W Magnetic declination: 15.8°E Inventory subarea: NW Inventory acronym: ALMI Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

Almirante Brown is the small Argentine station located in Paradise Bay. The old research station is located on a point of land with steep sea-cliffs at least 100 meters high on one side (adjacent to Paradise Bay), and the sheer face of a tide-water glacier on the other side, to the E. Several of the principal buildings are 10-30 meters above a small concrete pier, and damage from an extensive fire, more than a decade ago, is still evident.

There are a few gentoo penguin nests on the bedrock below the ruins of the main, derelict station building. The rock around the station, along the coast, and near the buildings is massive porphyritic andesite, which is extensively mineralized with green epidote along cracks and in inclusions. Nunataks rise through the surrounding glaciers. The bay is well protected and deep. Glaciers on the S end of the bay calve regularly. The burnt remains of the old station have not been fully removed, but much trash and garbage has been removed in recent years.

#### Landing Characteristics

This is a favored location for zodiac tours into Paradise Bay, which is regularly full of ice and a prime locus for resting crabeater, Weddell, and occasional leopard seas. On the nearby cliffs overlooking the bay to the S of the station, two blue-eyed shags colonies can be easily viewed by zodiac; late in the summer, juvenile shags often follow and swim with the zodiacs. The only possible shore landing is at the station itself.

The base is located on the Antarctic mainland and gives tourists an opportunity to set foot on the continent itself. The 30-50 meter slope behind the station is snow-covered for most of the spring and summer, and affords visitors a chance to hike upward for spectacular views of Paradise Bay, and then, to do some downhill snow sliding.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 10, 1994	RN BH	Livonia
2.	December 15, 1994	RN	Explorer
3.	January 24, 1995	RN	Explorer
4.	November 19, 1995	BH	W. Discoverer
5.	November 19, 1995	RN LB	Explorer
6.	November 28, 1995	RN LB	Explorer
7.	December 2, 1995	SF	W. Discoverer
8.	December 13, 1995	BH	W. Discoverer
9.	December 16, 1995	LB	Explorer
10.	November 25, 1996	RN SF	Explorer
11.	December 4, 1996	RN SF	W. Discoverer
12.	February 18, 1997	RN	Explorer
13.	November 27, 1997	RN SF	W. Discoverer
14.	December 4, 1997	RN SF	Explorer
15.	January 13, 2000	SF	Cal Star
16.	December 14, 2000	RN	Cal Star
17.	December 13, 2001	RN SF CE	Endeavour
18.	December 24, 2001	JC LGC	Endeavour
19.	January 15, 2002	RP WT	Endeavour
20.	January 27, 2002	RD LS	Endeavour
21.	February 7, 2002	MM	Endeavour
22.	February 17, 2002	RN	Endeavour
23.	December 11, 2002	RN	Endeavour
24.	January 3, 2003	RP	Endeavour
25.	January 12, 2003	SF	Endeavour

26.	January 25, 2003	RD	Endeavour
27.	February 6, 2003	MM	Endeavour
28.	February 14, 2003	MB	Endeavour

Assessment and monitoring. Surveyed, censused, mapped, and photodocumented (terrestrial). Regular censusing of blue eyed shag colonies near the abandoned Almirante Brown station.

# Fauna — Flora — Censuses

*Penguins & flying birds.* A few pairs of gentoo penguins nest underneath remnants of the burnt-out station, with snowy sheathbills often parading about, looking for spills of regurgitated food. The sheathbills also are seen commonly on the shag cliffs S of the station, and are presumed to be breeding. Blue-eyed shags, Antarctic terns, skuas, spp., and kelp gulls nest on the cliffs overlooking Paradise Bay, to the S of the station. The two large shag colonies S of the station are easily censused from a zodiac.

Blu	e-eyed sha	ags (colony #1, near A. Brown Station)
72	N1	1994 Jan
76	N1	1994 Dec
60	N1	1995 Nov
57	N1	1995 Dec
56	N1	1996 Nov
53	N1	1996 Dec
46	N1	1997 Nov
46	N1	1997 Dec
43	N1	2000 Jan
81	C1	2000 Jan
37	N1	2001 Dec
41	N1	2000 Dec
45	N1	2002 Dec
86	C1	2003 Feb
Blu	e-eyed sha	ags (colony #2, near A. Brown Station)
18	N1	1994 Jan
24	N1	1994 Dec
16	N1	1995 Nov
14	N1	1995 Dec
10	N1	1996 Nov
6	N1	1997 Nov
8	N1	1997 Dec
6	N1	2000 Jan
11	C1	2000 Jan
7	N1	2000 Dec
7	N1	2001 Dec
18	N1	2002 Dec
40	C1	2003 Feb
Blu	e-eyed sha	ags (colony #1 + #2, near A. Brown Station)
90	N1	1994 Jan
100	N1	1994 Dec
76	N1	1995 Nov
71	N1	1995 Dec
66	N1	1996 Nov
52	N1	1997 Nov
54	N1	1997 Dec
49	N1	2000 Jan
92	C1	2000 Jan
48	N1	2000 Dec
44	N1	2001 Dec

63	N1	2002 Dec
114	C1	2003 Jan
126	C1	2003 Feb

*Seals.* The station does not afford a good haul-out beach, but crabeater, Weddell, and occasionally leopard seals often are found resting on ice floes in the bay, or on ice ledges along the shoreline.

*Flora*. Moss becomes exposed on the slopes and cliffs above the station as the summer progresses, as well as on the cliffs within and above the shag colonies S of the station. Crustose lichens *Xanthoria*, spp. and *Caloplaca*, spp. have been noted on the shag cliffs.

# **Conservation Aspects**

Site sensitivities. None.

#### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	10	1,191
1990-91:	16	1,471
1991-92:	26	2,889
1992-93:	19	1,659
1993-94:	31	3,513
1994-95:	43	1,307
1995-96:	25	2,244
1996-97:	38	2,504
1997-98:	34	3,991
1998-99:	17	1,612
1999-2000:	35	3,369
2000-01:	41	4,445
2001-02	14	1,429
2002-03:	62	6,556
14-Season Total	411	38,000

Proximate visitor sites. Waterboat Point and the Chilean Station, Gonzalez Videla.

# Astrolabe Island (ASTR)

63°17'S, 58°40'W Magnetic declination: 12.2°E Inventory subarea: NW Inventory acronym: ASTR Species Diversity: MEDIUM Site Sensitivity: LOW

Note: Restricted visitor space

#### Location — History — Features

A 3-mile-long island lying in the Bransfield Strait, 14 miles NW of Cape Ducorps, Trinity Peninsula. It was discovered the French Expedition of 1837-40, under Capt. Jules Dumont d'Urville, and named for his chief expedition ship. A rarely visited site near the N tip of the Antarctic Peninsula, which offers excellent zodiac cruising and — if the tides are right and the hauled-out seals few — a chance for some walking on Astrolabe's rocky shores. The chinstraps occupy steep, uphill nesting locations. At 140 meters elevation, many Antarctic fulmars breed. There are a number of points from which chinstraps may be observed leaping in or out of the sea.

### Landing Characteristics

Uncharted water near shore. Hazardous rocks along the shoreline may be exposed, depending on the tide. Restricted visitor space on the cobble landing beach, which is strewn with boulders and slippery. Antarctic fur seals may be present. Steep slopes inland and considerable loose scree at higher elevations.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	January 15, 1996	RN BH	Endurance
2.	February 11, 1996	BH RP	Livonia
3.	December 15, 1999	SF	Shuleykin

Assessment and monitoring. Preliminary surveying, mapping, censusing, and photodocumentation (aerial and terrestrial).

#### Fauna — Flora — Censuses

*Penguins & flying birds.* Chinstrap penguins, Antarctic fulmars, and Antarctic brown skuas are confirmed breeders. Blue-eyed shags nest on offshore islands. Wilson's storm-petrels flying about, suggesting nests in the higher scree.

Recent chinstrap penguin census reported in Woehler, 1993: 3,400 N3/4, 1987.

Seals. Weddell and Antarctic fur seals were hauled-out during Inventory visits.

*Flora. Caloplaca*, spp., *Xanthoria candelaria*, *Buellia*, spp. And other crustose lichens, spp., and moss, spp. observed above 73 meters elevation, and *Usnea antarctica* at 75-90 meters elevation.

#### **Conservation Aspects**

*Site sensitivities.* Chinstrap penguins nesting on steep, uphill slopes are not easily accessed, but are easily disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks at the nest, then in crèche. Antarctic fulmars breed on ledges at highest elevations and are easily disturbed. Skuas nest in scattered locations and are easily approached and disturbed. Avoid and stay clear of Antarctic fur seals, which should be given a wide berth and should not be approached.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting penguins.

Avoid and stay clear of skua territories, and do not approach fulmar nesting ledges.

Stay clear of — and do not hike upon or wander over — scree slopes

If beach cannot be accessed because of tide, ice, seals, or numbers of penguins, zodiac tours are the best way to view the site.

# Visitation Aspects

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	1	34
1993-94:	3	93
1994-95:	4	211
1995-96:	2	69
1996-97:	2	105
1997-98:	1	53
1998-99:	0	0
1999-2000:	5	288
2000-01:	2	54
2001-02:	1	55
2002-03:	1	62
14-Season Total	22	1,024

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

Proximity to other nearby visitor sites. Mikklesen Harbor, Trinity Island, lies SW, Gourdin Island to the NE.

# Bernardo O'Higgins Station (BERN)

63°19'S, 57°54'W Magnetic declination: 11.7°E Inventory subarea: NW Inventory acronym: BERN Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

Site of Chilean research station near Cape Legoupil.

# Landing Characteristics

Easy landing on the station jetty.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. December 2, 1996 RN W. Discoverer

Assessment and monitoring. None.

# Fauna — Flora — Censuses

*Penguins & flying birds.* Gentoo penguins are confirmed breeders. Skuas, spp. and kelp gulls noted during Inventory visit. Immature-plumaged Kelp Gulls suggest breeding in the vicinity.

Seals. None noted.

Flora. None noted.

# **Conservation Aspects**

Site sensitivities. None.

### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	<b>Participating Visitors</b>
1989-96:	0	0
1996-97:	1	95
1997-98:	0	0
1998-99:	0	0
1999-2000:	0	0
2000-01:	0	0
2001-02:	0	0
2002-03:	0	0
14-Season Total	1	95

Proximate visitor sites. Astrolabe and Gourdin Islands.

# **Cuverville Island (CUVE)**

64°41'S, 62°38'W Magnetic declination: 15.5°E Inventory subarea: NW Inventory acronym: CUVE Species Diversity: HIGH Site Sensitivity: LOW

Note: Restricted visitor space if high tide, heavy snow or ice

# Location — History — Features

A rocky island with extensive moss cover at higher elevations, lying in the Errera Channel between Arctowski Peninsula and the N part of Rongé Island, off the W coast of the Antarctic Peninsula. It was discovered by Gerlache's Belgian Antarctic expedition (1897-99), and named by Charcot for a vice-admiral in the French Navy. Nearly vertical cliffs surround the island except on the NE coast, where a gently sloping apron of bedrock extends 200 meters from the shore to the base of the cliffs. Much of the apron on the NE side of the island may remain snow-covered through much of December. Large, bare rock areas of this platform provide nesting sites for gentoo penguins. The surface occupied by the penguins, although largely on bedrock or raised beach deposits, is covered with guano, mud, and other organic debris. The water level rises to a narrow beach (often with overhanging snow/ice), which comprises a wide range of rounded boulders and cobbles of several types. Outcrops occupied by the penguins are highly cryoturbated (i.e. broken and churned by freezing and thawing), creating many small, flat, angular blocks. The whole lower section at base of the cliffs has rounded outcrop surfaces that are glacially polished and grooved. A well-defined raised beach, S of the usual landing area and forming the nesting site for many gentoos, is located 8-10 meters above present sea-level. This raised area is defined by a roughly flat terrace (hummocky from glaciated outcrops) with lots of small, partially rounded pebbles in hollows and on flat places, and suggests uplift of the land, lowering of sea level, or both during deglaciation. In all likelihood a more careful examination would reveal several different levels of raised beaches that penguins have been occupied during various stages of deglaciation.

#### Landing Characteristics

Uncharted water near shore. Hazardous rocks along the shoreline may be exposed, depending on the tide. Nearly vertical cliffs surround the island except on the NW coast, where zodiac landings occur on a long and exposed, cobble beach often packed with ice and snow covered, adjacent to elevated bedrock terraces extending to the W. Landing beach difficult to negotiate when snow- or ice-covered or wet. Very restricted visitor space with high tide and heavy snow cover, or when shoreline caked with ice, which crowds penguins into lines marching to and from the water. More visitor space on a low or falling tide. A very small beach at the N end provides a major access route for penguins, but is too small to accommodate both penguins and visitors, and should not be used. Snow cornices on the shoreline are unstable and treacherous.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 8, 1994	RN	Alla Tarasova
2.	December 10, 1994	RN	Livonia
3.	January 24, 1995	RN	Explorer
4.	November 19, 1995	RN LB	Explorer
5.	November 19, 1995	BH	W. Discoverer
6.	November 27, 1995	RN LB	Explorer
7.	December 2, 1995	BH	W. Discoverer
8.	January 19, 1996	RD RP	Livonia
9.	February 4, 1996	RN RD RP BH	Livonia
10.	February 12, 1996	BH RP	Livonia
11.	December 4, 1996	RN SF	W. Discoverer
12.	February 18, 1997	RN	Explorer
13.	December 4, 1997	RN	Explorer
14.	December 5, 1998	RN SF	Explorer
15.	January 23, 2000	RN	Shuleykin
16.	January 23, 2001	RN RD	Cal Star
17.	December 13, 2001	RN SF CE	Endeavour

18.	January 4, 2002	RP	Endeavour
19.	January 14, 2002	RP WT	Endeavour
20.	February 7, 2002	MM	Endeavour
21.	February 15, 2002	RN	Endeavour
22.	January 2, 2003	RP	Endeavour
23.	February 14, 2003	MB	Endeavour

Assessment and monitoring. Preliminary surveying, mapping, censusing, and photodocumentation (terrestrial). Regular, site-wide censusing of gentoo penguins difficult to accomplish in short, 2-3 hour visits. This is the largest gentoo penguin colony in the Peninsula, with many scattered nesting groups, and many at high elevations. Inventory researchers have begun to census the shag colony on the NE side of the island.

#### Fauna — Flora — Censuses

*Penguins & flying birds.* Gentoo penguins, southern giant petrels, kelp gulls, Antarctic terns, snowy sheathbills, and skuas, spp. are confirmed breeders. Blue-eyed shags nest on the NE coast of the island, and Wilson's storm-petrels nest in the higher scree. Snow and pintado petrels also may nest in the highest part of the island.

Recent gentoo penguin census data reported in Woehler (1993) and Woehler & Croxall (1996): 4,818 N1, 1994, an increase of approximately 400 pairs above 1993 nest counts, and an increase of approximately 1,600 pairs above 1988 nest counts.

Antarctic Site Inventory censuses:

Blue-	eyed shag	
33	C1	2001 Jan
28	N1	2003 Jan
40	C1	2003 Feb

Seals. Weddell and Antarctic fur seals were hauled-out during Inventory visits.

Flora. Xanthoria, spp., Buellia, spp., Caloplaca, spp., Usnea, spp. Deschampsia Antarctica, and numerous patches of moss, spp. noted.

#### **Conservation Aspects**

*Site sensitivities.* Gentoo penguins nesting on bedrock terraces W and N of the landing beach and on higher ridges and slopes are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks at the nest, then in crèche. Patches of hair grass, *Deschampsia Antarctica*, are readily accessed and easily may be trampled. If snow has melted, moss beds on ridges and slopes above the main beach, especially on top of the island, are readily accessed and easily may be trampled. Skuas nesting on ridges and slopes above and W of the main beach are easily accessed and disturbed, particularly, later in the season (from mid-January) when adults are fiercely protecting young. Steep, uphill slopes and ridges may be snow- or ice-covered, crevassed, wet, and slippery.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting gentoo penguins, and do not impede penguins' access to and from the water.

If extensive snow cover, avoid — and do not walk in or block — trails that penguins have made through the snow.

Strictly control hiking and walking in deep snow, ensuring that all visitors use the same path.

Stay clear of the small beach at the N end, which provides a major access route for penguins.

Watch footsteps carefully, especially when snow cover is absent, to avoid trampling moss and grass.

Strictly control hikes to high ridges and slopes by organizing small groups of no more than 15 visitors, which are well spaced, with one guide per group, all following the same path, and not allowing any free wandering.

If snow has melted, stay clear of — and do not hike upon or wander over — the moss-rich top of the island, which is extremely fragile.

Stay clear of — and do not hike upon or wander over — snow cornices.



# Visitation Aspects

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	8	883
1990-91:	8	936
1991-92:	21	2,565
1992-93:	25	1,589
1993-94:	27	2,174
1994-95:	47	3,367
1995-96:	59	4,343
1996-97:	56	3,714
1997-98:	53	4,143
1998-99:	55	4,087
1999-2000:	63	4,908
2000-01:	56	5,615
2001-02:	53	4,115
2002-03:	54	4,749
14-Season Total	585	47,188

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

Proximate visitor sites. Georges Point, Rongé Island, the Orne Island, Danco Island, and Neko Harbor.

# **Danco Island (DANC)**

64°44'S, 62°37'W Magnetic declination: 15.5°E Inventory subarea: NW Inventory acronym: DANC Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

A 1-mile-long island lying in the S part of the Errera Channel, off the W coast of the Antarctic Peninsula. It was first charted by Gerlache's Belgian Antarctic Expedition (1897-9), and named for the Belgian geophysicist who died on board the *Belgica* in the Antarctic. Site of abandoned British Antarctic Survey hut.

# Landing Characteristics

Substantial cobble beach. Zodiacs must closely observe rocks offshore. The hike from the beach to the gentoos is not steep. The hut is off limits to visitors. Snow cover may be extensive.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	November 29, 1999	LB BP	Cal Star
2.	December 14, 2001	RN SF CE	Endeavour

Assessment and monitoring. Preliminary surveying, censusing, and photodocumentation (terrestrial).

# Fauna — Flora — Censuses

*Penguins & flying birds.* Gentoo penguins are confirmed breeders. Snowy sheathbills, kelp gulls, blue-eyed shags also noted in the vicinity, but breeding on site not confirmed.

Antarctic Site Inventory censuses:

Gentoo penguin 2,300 N2 1999 Nov

Recent gentoo penguin census data reported in Woehler & Croxall (1996): 1,637 N1, 1994, an increase of more than 800 pairs from 1986 nest counts.

Seals. None observed.

Flora. Snow algae observed.

#### **Conservation Aspects**

Site sensitivities. None.

#### Visitation Aspects

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	0	0
1993-94:	3	73
1994-95:	4	276
1995-96:	13	560
1996-97:	5	314
1997-98:	6	380
1998-99:	6	343
1999-2000:	14	993
2000-01:	4	120
2001-02:	13	996
2002-03:	13	806

	Zodiac Landings	Participating Visitors
14-Season Total	81	4,861

Proximate visitor sites. Cuverville Island, the Orne Islands, Georges Point (Rongé Island), and Neko Harbor.

# Dorian Bay (Damoy Point), Wiencke Island (DORI)

64°49'S, 63°30'W Magnetic declination: 16.2°E Inventory subarea: NW Inventory acronym: DORI Species Diversity: LOW Site Sensitivity: LOW

### Location — History — Features

Dorian Bay is a cove on the NW side of Wiencke Island, located 0.5 mile E-NE of Damoy Point, in the Palmer Archipelago. British and Argentine huts may be found on-site. Damoy Point (64°49'S 63°32'W) is the N entrance point to Port Lockroy harbor, on the W side of Wiencke Island in the Palmer Archipelago. The point was discovered and named by Charcot's French Antarctic expedition (1903-05). From inner Dorian Bay, the land rises gently from a bare, rocky landing to two huts, one a well-maintained and stocked British refuge hut, the second a small Argentinian hut. The landing area below the huts is a minor sand beach, interspersed with many glaciated, polished rocks. Behind them the land rises gently on one side to a rounded, bare hilltop 30-40 meters above sea level. On the other side a steep snowy slope leads up onto the end of a glacier. The site's outcrops are mainly low, smooth and polished. At an elevation of 6-7 meters above sea level, there are outcrops nearly covered with many small (1-4 centimeter), and well-rounded fragments of granitic, gneiss/schist, and other materials. British and Argentine huts located on site.

#### Landing Characteristics

Also known as Damoy Hut area, where an Argentine refuge and a very well preserved British hut are located. British researchers continue to use the hut, which offers access either by sea - a very nicely protected anchorage - or air - a long ice runway that twin otters may utilize. In comparison to nearby Port Lockroy, the site is more exposed to wind from the Neumayer Channel, which in high gusts makes the site less accessible to visits. Visitors may disembark relatively easily on the site's cobble beach. The gentoo penguin colonies are spaced more widely than at Port Lockroy. There is a "road sign" marker approximately 0.5km from the huts, accompanied by a stone marked on which site coordinates are painted. The landscape changes dramatically, from a site that may be substantially snowcovered in spring, to one having little snow surrounding the penguin colonies in high summer.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 15, 1994	RN BH ST	Explorer
2.	January 26, 1995	RN	Explorer
3.	December 13, 1995	BH	W. Discoverer
4.	December 17, 1995	LB	Explorer
5.	January 14, 1996	RN BH	Endurance
6.	January 24, 1996	RD RP	Livonia
7.	December 12, 2002	RN Endea	avour

Assessment and monitoring. Preliminary surveying, mapping, censusing, and photodocumentation (terrestrial).

#### Fauna — Flora — Censuses

Penguins & flying birds. Gentoo penguins and south polar skuas are confirmed breeders.

Recent gentoo penguin census data in Woehler (1993): 1,658 N1, 1990, at Damoy Point (64°49'S 63°31'W); Croxall and Kirkwood (1979), map 24.4, indicates that the Damoy Point colony refers to the gentoos nesting between Damoy Point and inner Dorian Bay.

Antarctic Site Inventory censuses: Gentoo penguins 1,928 N2 2002 Dec

Seals. Weddell seals have hauled-out along the inner bay.

*Flora. Prasiola crispa* observed in flat melt areas. Snow algae present in early season snow cover. Small patches of moss, spp. noted, as well as a few crustose lichens on exposed rocks.

# **Conservation Aspects**

Site sensitivities. Penguins are easily approached and disturbed.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting gentoo penguins.

Do not impede penguins' access to and from the water.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	0	0
1993-94:	0	0
1994-95:	3	321
1995-96:	6	597
1996-97:	1	92
1997-98:	7	477
1998-99:	8	553
1999-2000:	13	1,247
2000-01:	16	805
2001-02:	10	737
2002-03:	19	1,884
14-Season Total	83	6,713

NOTE: In this instance, tour operators apparently have been reporting visits to a single site, but reporting under the names of two on-site, geographical features. The foregoing table reflects separate figures in the NSF/OPP database for landings/visits to Dorian Bay and Damoy Point, respectively; and, in parentheses, the combined, total number of landings and visitors, and the overall ranking of the site in terms of numbers of visitors (32nd in 1994-95, 22nd in 1995-96, and 36th for 1989-96).

Proximate visitor sites. Port Lockroy is located nearby on the S side of Damoy Point.

# Foyn Harbor (FOYN)

64°33'S, 62°01'W Magnetic declination: 15.0°E Inventory subarea: NW Inventory acronym: FOYN Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

An anchorage between Nansen and enterprise Islands off the W coast of the Antarctic Peninsula. Surveyed by T. W. Bagshawe and M. C. Lester in 1921-22. Named by whalers after the whaling factory ship Svend Foyn, which was moored here during 1921-22.

# Landing Characteristics

Scattered rocky areas where zodiacs may land, but mostly, a site for zodiac touring.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003: 1. December 18, 1999 SF Shuleykin

Assessment and monitoring. None.

### Fauna — Flora — Censuses

Penguins & flying birds. Passing blue-eyed shags, no nesting observed.

Seals. Weddell seals hauled-out.

Flora. None noted.

# **Conservation Aspects**

Site sensitivities. None.

#### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	1	66
1993-94:	3	133
1994-95:	0	0
1995-96:	0	0
1996-97:	0	0
1997-98:	0	0
1998-99:	0	0
1999-2000:	0	0
2000-01:	3	80
2001-02:	3	159
2002-03:	1	46
14-Season Total	11	484

Proximate visitor sites. Gouvernøren Harbor, Portal Point.

# Georges Point, Rongé Island (RONG)

64°40'S, 62°40'W Magnetic declination: 15.5°E Inventory subarea: NW Inventory acronym: RONG Species Diversity: LOW Site Sensitivity: MODERATE

# Location — History — Features

The N tip of Rongé Island, lying W of Arctowski Peninsula off the W coast of the Antarctic Peninsula. It was discovered and named by Gerlache's Belgian Antarctic expedition, 1897-9. As with the Orne Islands site, a chance to view chinstrap penguins. The rocky shoreline requires careful zodiacs maneuvering. There are some chinstraps to the W of the N-facing landing site, with gentoos and more chinstraps accessible via a moderate uphill climb toward the glacier that backs this site.

### Landing Characteristics

Uncharted water near shore. Hazardous rocks along the shoreline may be exposed, depending on the tide. Landing on slippery, cobble shoreline. Snow cover may be extensive, making uphill hiking difficult. Nesting penguins are found upslope and inland. Snow cornices on the shoreline are unstable and treacherous.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 2, 1995	BH	W. Discoverer
2.	December 13, 1995	BH	W. Discoverer
3.	January 25, 1996	BH	W. Discoverer
4.	February 11, 1996	BH RP	Livonia
5.	December 4, 1996	RN SF	W. Discoverer
6.	December 4, 1997	SF	Explorer
7.	November 27, 1998	RN SF	Explorer
8.	December 16, 1999	SF	Shuleykin
9.	January 12, 2001	SF	Cal Star

Assessment and monitoring. Surveyed, mapped, and photodocumented (terrestrial). Regular censusing of gentoo and chinstrap penguins. More thorough ground-survey of floral communities needed.

# Fauna — Flora — Censuses

Penguins & flying birds. Gentoo penguins, chinstrap penguins, and snowy sheathbills are confirmed breeders.

Antarctic S	Site Inven	tory censuses:
Chinst	trap peng	uin
383	N1	1996 Dec
327	N1	1998 Nov
356	N1	2001 Jan

Recent penguin census data reported in Woehler (1993): gentoo penguin, 1,752 N1, 1994, an increase of more than 800 pairs from 1986 nest counts; and chinstrap penguin, 414 N1, 1994, a decrease from the estimated 600 pairs in 1988, and slightly higher than the estimated 300 pairs in 1984.

Seals. A dead Antarctic fur seal observed on Inventory visit.

Flora. Snow algae noted.

#### **Conservation Aspects**

*Site sensitivities.* Nesting gentoo penguins and chinstrap penguins are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks at the nest, then in crèche. Snowy sheathbills nest in rock caves and crevices, and are easily approached and disturbed.

### Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting penguins.



Do not impede penguins' access to and from the water.

Walk slowly and carefully around nesting sheathbills.

Stay clear of — and do not hike upon or wander over — snow cornices.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	5	186
1993-94:	6	267
1994-95:	10	711
1995-96:	9	546
1996-97:	12	673
1997-98:	6	655
1998-99:	2	135
1999-2000:	3	149
2000-01:	4	170
2001-02:	1	15
2002-03:	2	273
14-season total	60	3,780

NOTE: It appears that tour operators have only rarely used the specific geographical name of this site in reporting visits. Georges Point is <u>the</u> landing site normally used on Rongé Island. The foregoing table reflects separate figures in the NSF/OPP database for landings/visits to Georges Point and Rongé Island, respectively.

Proximate visitor sites. Orne Islands, Danco Island, Cuverville Island, and Neko Harbor.

# Gourdin Island (GOUR)

64°32'S, 62°00'W Magnetic declination: 11.2°E Inventory subarea: NW Inventory acronym: GOUR Species Diversity: LOW Site Sensitivity: MODERATE

Note: Restricted visitor space if high tide, heavy snow or ice

#### Location — History — Features

Largest of group of islands and rocks one mile N of Prime Head, the N tip of the Antarctic peninsula. Discovered by Jules Dumont d'Urville's French Expedition of 1837-40, and named for an ensign of the exp[edition ship *Astrolabe*.

# Landing Characteristics

Substantial ice may rim the island in spring, impeding access to the rocky landing beach on the NW end. Access is all uphill, and may be difficult because of heavy early spring snowfall or, later in the season, slippery guano and mud.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 2, 1997	RN SF	Explorer
2.	January 20, 1999	RN	Endurance
3.	December 7, 2002	RN	Endeavour

Assessment and monitoring. Preliminary surveying, censusing, mapping, and photodocumentation (aerial and terrestrial). Floral survey is needed.

# Fauna — Flora — Censuses

Penguins & flying birds. Chinstrap, gentoo, and Adélie penguins, and skuas, spp. are confirmed breeders.

Antarctic Site Inventory censuses:
Chinstrap penguin (NW and E end of island, only)
3,282 N2 1997 Dec
Gentoo penguin (NW end of island, only)

568 N2 1997 Dec

Adélie penguin (NW end of island, only) 14,334 N2 1997 Dec

Recent census data reported in Woehler include: chinstrap penguin, a "large" colony, 1969; Adélie penguin 300 N4, 1969; and gentoo penguin, 50 N3, 1969. Other Peninsula sites where all three pygoscelid penguins nest contiguously are: Stranger Point, King George Island, the Point Thomas Antarctic Specially Protected Area in Admiralty Bay, and Ardley Island, all of which are off-limits to visitors under the Antarctic Treaty; and Booth Island.

Seals. None observed.

Flora. None observed.

#### **Conservation Aspects**

Site sensitivities. All three penguin species are very easily approached and readily disturbed.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting penguins.

Do not impede penguins' access to and from the water.

#### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	0	0
1993-94:	0	0
1994-95:	0	0
1995-96:	0	0
1996-97:	0	0
1997-98:	2	207
1998-99:	4	321
1999-2000:	4	252
2000-01:	4	197
2001-02:	2	58
2002-03:	7	638
14-season total	23	1,673

Proximate visitor sites. Astrolabe Island, Bernardo O'Higgins Station.

# **GOURDIN ISLAND**



# **POINTERS FOR AVOIDING DISRUPTIONS**

- WALK SLOWLY AND CAREFULLY AROUND NESTING, CRÉCHING, OR MOLTING ADÉLIE, CHINSTRAP, AND GENTOO PENGUINS
- DO NOT IMPEDE PENGUINS' ACCESS TO AND FROM THE WATER

# O C E A N I T E S Antarctic Site Inventory

# Gouvernøren Harbor (GOUV)

64°32'S, 62°00'W Magnetic declination: 15.0°E Inventory subarea: NW Inventory acronym: GOUV Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

Small harbor indenting the E side of Enterprise Island W of Pythia Island in Wilhelmina Bay, off the W coast of the Antarctic Peninsula. Named by whalers after the vessel that sank here in 1916, the remains of which (including harpoons and other gear) are still visible, above and below the water.

# Landing Characteristics

Scattered rocky areas where zodiacs may land, but mostly, a site for zodiac touring.

### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. February 17, 2002 RN Endeavour

Assessment and monitoring. None.

# Fauna — Flora — Censuses

Penguins & flying birds. Blue-eyed shags and kelp gulls noted, but no breeding observed.

Seals. None noted.

Flora. None noted.

# **Conservation Aspects**

Site sensitivities. None.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	<b>Participating Visitors</b>
14-Season Total	0	0

Note: The NSF visitor compilations nonspecifically list visits to the "Enterprise Islands," which may or may not reflect visits to this site. There are no listings for Gouvernøren Harbor.

Proximate visitor sites. Foyn Harbor, Portal Point.

# Hydrurga Rocks (HYDR)

64°08'S, 61°37'W Magnetic declination: 14.5°E Inventory subarea: NW Inventory acronym: HYDR Species Diversity: LOW Site Sensitivity: LOW

Note: Restricted visitor space

### Location — History — Features

A group of rocks lying E of Two Hummock Island in the Palmer Archipelago, and named after the leopard seal, *Hydrurga leptonyx*. These low, rocky islands rise to approximately 25 meters above sea level and have a bare-rock summit. Snow cover may totally cover the area in November. The narrow shingle beach is made up largely of pebbles and cobbles of angular to subrounded blocks, with some minor sand and granules. Several of the smaller rocks surrounding the main island are connected by causeways of this shingle material. Glacially polished rock surfaces are extensive.

#### Landing Characteristics

Rock-strewn island, which approaching zodiacs must negotiate carefully to avoid shallow rocks. Visitors must climb uphill from the regular landing rocks, sometimes through deep early-season snow, to reach numerous, discrete groups of chinstrap penguins. An additional set of chinstrap colonies to the N are more difficult to access. Shag nests are relatively inaccessible in heavy snow cover, but may be more accessible in mid- to late-summer. There appear to be few vantage points for photo-documentation.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	November 18, 1995	BH	W. Discoverer
2.	December 1, 1995	BH SF	W. Discoverer
3.	November 25, 1996	SF WT RN	Explorer
4.	December 17, 1999	RN	Cal Star
5.	December 26, 2000	SF LF	Cal Star
6.	December 23, 2001	JC LGC	Endeavour
7.	January 3, 2002	RP	Endeavour
8.	January 1, 2003	RP	Endeavour
9.	January 11, 2003	SF	Endeavour

Assessment and monitoring. Preliminary surveying, mapping, and photodocumentation (terrestrial). Regular censusing of chinstrap penguin groups (##1-20) and blue-eyed shags. More thorough ground survey of floral communities, after snow cover recedes, is needed.

#### Fauna — Flora — Censuses

*Penguins & flying birds.* Chinstrap penguins, blue-eyed shags, and kelp gulls are confirmed breeders. Antarctic brown skuas noted, and also may breed.

Antarctic Site Inventory censuses:Chinstrap penguin (site-wide)526N11996 Nov420N12000 Dec398N12003 Jan

Blue-eyed shag (site-wide)21N11996 Nov13N12000 Dec

12 N1 2003 Jan

Recent chinstrap penguin census data reported in Woehler (1993): 1,000 N4/5, 1986.

Seals. Leopard seals observed patrolling the site. Weddell seals hauled-out on cobble shoreline and on snow-covered areas above the shoreline.

Flora. Virtually total snow cover during Inventory visits.

# **Conservation Aspects**

*Site sensitivities.* Restricted visitor space and upward climb (often, through snow) to reach the penguins, whose nests are readily approached. Steep cliff edges.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting chinstrap penguins.

Do not impede penguins' access to and from the water.

If extensive snow cover, avoid — and do not walk in or block — trails that penguins have made through the snow.

Stay clear of — and do not hike upon or wander over — cliff edges.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	0	0
1993-94:	3	165
1994-95:	2	72
1995-96:	1	83
1996-97:	7	461
1997-98:	4	199
1998-99:	8	553
1999-2000:	9	501
2000-01:	0	0
2001-02:	8	451
2002-03:	5	381
14-Season Total	47	2,866

*Proximate visitor sites.* Sprightly Islands lie to the SE; Portal Point (Charlotte Bay) to the S; Mikklesen Harbor and Astrolabe Island to the NE.



# Jougla Point, Port Lockroy, Wiencke Island (LOCK)

64°49'S, 63°30'W Magnetic declination: 16.2°E Inventory subarea: NW Inventory acronym: LOCK Species Diversity: MEDIUM Site Sensitivity: LOW

Note: Restricted visitor space at shoreline and lower elevations

#### Location — History — Features

A harbor, 0.5 mile long and wide, entered between Flag Point and Lécuyer Point on the W side of Wiencke Island, in the Palmer Archipelago. It was discovered by Charcot's French Antarctic expedition (1903-05) and named for Édouard Lockroy, the French politician who assisted Charcot in obtaining government backing for his expedition. Most visitor landings have taken place at Jougla Point, which slopes gently upward to a flat area about 10 meters above sea level, and then further to a minor summit about 100 meters above sea level. Inland, there are steep and rugged mountain slopes. Snow cover may be considerable through mid-December, when extensive areas of outcrop on the ridges and summit of this area become snow-free. Many of the outcrops are occupied by the nests of gentoo penguins and are partially covered with guano, which creates a layer of organic soil. At Jougla Point, the water comes directly over bare, rocky outcrops of diorite and quartz diorite composition. Just above, on what may be a raised beach, there are numerous gentoo penguin nests among the rounded cobbles, boulders, and pebbles. In mid-to late-summer, this area is awash in guano and mud. Several large, tidewater glaciers flow down into Alice Creek to the E of, and behind, Jougla Point. This small bay is often covered with fast ice. The Port Lockroy harbor is substantially protected, and provides an excellent lee from the often windblown Neumayer Channel and Gerlache Strait.

This site is *not* Goudier Is., where restored UK hut is located. The Operation Tabarin hut on Goudier Island has been restored and will be manned, beginning in the 1996-97 summer, to accommodate inquiring visitors.

### Landing Characteristics

Jougla Point lies at the SW end of Wiencke Island and juts into the small harbor of Port Lockroy, an excellent, protected anchorage entered between Flag Point and Lécuyer Point. Goudier Island, with a restored UK hut, is located in the harbor, immediately N of Jougla Point. Several large glaciers flow into the harbor, which in November and December may be covered with fast ice. Zodiac landings on boulders and rocks at far NW end of Jougla Point, or slightly E-SE, toward a part of the inner harbor called Alice Creek. Very restricted visitor space in vicinity of nesting penguins and shags, especially at the NW end. May be extensive snow cover early (perhaps, into January); extensive guano, mud, and snow melt later; and at all times slippery. Snow cornices on the shoreline are unstable and treacherous. Extensive, steep, and potentially crevassed snowfields above the harbor. Glaciers at higher elevations inland.

#### Antarctic Site Inventory Effort

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 8, 1994	RN BH	Alla Tarasova
2.	December 11, 1994	RN BH	Livonia
3.	December 15, 1994	RN BH ST	Explorer
4.	January 26, 1995	RN	Explorer
5.	November 20, 1995	RN LB	Explorer
6.	November 27, 1995	RN LB	Explorer
7.	January 14, 1996	RN BH	Endurance
8.	January 24, 1996	RD RP	Livonia
9.	February 13, 1996	BH RP	Livonia
10.	November 24, 1996	RN SF WT	Explorer
11.	November 24, 1997	RN SF	W. Discoverer
12.	December 5, 1997	RN SF	Explorer
13.	November 28, 1998	RN SF	Explorer
14.	January 14, 1999	RN SF	Endurance
15.	November 27, 1999	LB BP	Cal Star
16.	December 17, 1999	RN	Cal Star
17.	January 13, 2000	SF	Cal Star

18.	January 19, 2000	RD	Explorer
19.	January 23, 2000	RN	Shuleykin
20.	December 13, 2000	RN	Cal Star
21.	December 27, 2000	SF	Cal Star
22.	January 12, 2001	SF	Cal Star
23.	January 13, 2001	RN RD	Cal Star
24.	February 4, 2001	RN	Cal Star
25.	December 15, 2001	RN SF CE	Endeavour
26.	December 25, 2001	JC LGC	Endeavour
27.	January 5, 2002	RP	Endeavour
28.	January 16, 2002	RP WT	Endeavour
29.	January 28, 2002	RD LS	Endeavour
30.	February 6, 2002	MM	Endeavour
31.	February 15, 2002	RN	Endeavour
32.	December 9, 2002	RN	Endeavour
33.	January 2, 2003	RP	Endeavour
34.	January 12, 2003	SF	Endeavour
35.	January 25, 2003	RD	Endeavour
36.	February 6, 2003	MM	Endeavour
37.	February 13, 2003	MB	Endeavour

Assessment and monitoring. Surveyed and photodocumented (aerial and terrestrial). Regular, site-wide censusing of gentoo penguins and blue-eyed shags. More thorough ground-survey of floral communities needed.

# Fauna — Flora — Censuses

Penguins & flying birds. Gentoo penguins, kelp gulls, blue-eyed shags and skuas, spp. are confirmed breeders.

Recent Jougla Point gentoo penguin census data reported in Woehler (1993): 1,616 N1, 1988.

At nearby Goudier Island, Cobley & Shears (1999) examined effects of visitor disturbance on the breeding performance of gentoo penguins during the austral summer of 1996-97 by comparing pairs in experimental areas (visited by 35-55 tourists every 1-2 days) and control colonies (not visited by tourists). They found no differences between the two groups in the proportion of birds that laid, in hatching success, or the proportion of single-chick broods, and that the overall breeding success, based on counts of crèched birds, was similar to other southern populations of gentoo penguins after correcting for mortality between crèching and fledging. Historical data from Goudier Island indicate that this colony established itself in 1985 and has rapidly increased in size since.

Cobley & Shears (1999) also note that the Jougla Point/Alice Creek colony, which the Inventory censuses regularly and which has been visited regularly by tourists, also has shown a population increase, but at a slower rate. They conclude that it is unlikely that disturbance from tourist visits has been a major determinant of gentoo population change at Port Lockroy.

Antarctic Site Inventory censuses:

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	1 0	
1,595	N1	1996 Nov
1,405	N1	1997 Nov
1,545	N1	1997 Dec
1,437	N1	1998 Nov
1,681	N1	1999 Nov
1,501	N1	1999 Dec
837	N1	2001 Dec
1,556	N1	2002 Dec
Blue-ey	yed shag	
31	N1	1994 Dec
58	C1	1995 Jan
22	N1	1995 Nov

N1

C1

1996 Jan

1996 Jan

20	N1	1997 Nov
20	N1	1997 Dec
33	C1	1998 Feb
22	N1	1998 Nov
25	N1	1999 Dec
26	N1	2000 Jan
44	C1	2000 Jan
25	N1	2000 Dec
25	N1	2001 Jan
20	N1	2001 Dec
43	C1	2001 Feb
24	N1	2002 Jan
23	C2	2002 Feb
24	N1	2002 Dec

Seals. Weddell seals occasionally haul-out along Alice Creek shoreline.

*Flora. Xanthoria*, spp., *Caloplaca* spp., *Buellia*, spp., and other crustose lichens, spp. noted on exposed rocks near highest gentoo groups. Scattered *Prasiola crispa* also noted.

#### **Conservation Aspects**

*Site sensitivities.* Very restricted and cramped visitor space among the gentoo penguins and blue-eyed shags nesting at the NW end of Jougla Point. The penguins are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks at the nest, then in crèche. Blue-eyed shags nesting on the outer edges of the Point cannot be approached easily, but are skittish and defensive, and easily disturbed; in November and early December adults will be incubating eggs and, subsequently, guarding and provisioning chicks. Gentoo penguins also nest on elevated outcrops inland toward Alice Creek, and on high ridges above the harbor; in these areas, visitor space improves, but still, the penguins are easily approached and disturbed.

Pointers for avoiding disruptions.

Avoid and stay clear of blue-eyed shags nesting on the outer edge of the Point.

Walk slowly and carefully around nesting, crèching, or molting gentoo penguins.

Do not impede penguins' access to and from the water.

If extensive snow cover, avoid — and do not walk in or block — trails that penguins have made through the snow.

Strictly control hikes to penguins nesting on high ridges above the harbor by organizing guided groups, which are well spaced, all following the same path, and not allowing any free wandering.

Stay clear of — and do not hike upon or wander over — snowfields, glaciers, or snow cornices.



# Visitation Aspects

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	7	796
1990-91:	7	1,067
1991-92:	19	2,615
1992-93:	22	2,139
1993-94:	30	4,274
1994-95:	27	1,769
1995-96:	42	3,851
1996-97:	58	3,212
1997-98:	63	6,879
1998-99:	75	7,587
1999-2000:	93	9,323
2000-01:	94	8,675
2001-02:	43	4,238
2002-03:	63	6,575
14-Season Total	643	63,000

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

<u>NOTE</u>: This table combines landings data from Jougla Point and Port Lockroy, but does not include data regarding the newly restored hut and visitor site at nearby Goudier Island.

*Proximate visitor sites.* Dorian Bay is the closest, alternative visitor site, located on the N side of Damoy Point, at the lower end of the Neumayer Channel.

# Lecointe Island, Pampas Channel (LECO)

64°16''S, 62°03'W Magnetic declination: 14.9°E Inventory subarea: NW Inventory acronym: LECO Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

N elongated 4-mile-long island, 700 meters in elevation, separated from the E coast of Brabant Island by Pampa Passage. Preliminarily surveyed by the Belgian Antarctic expedition of 1987-99, and surveyed and photographed by British expedition in 1955-58, which named the site for the second-in-command, and surveyor, of the Belgian expedition that first surveyed the Gerlache Strait.

# Landing Characteristics

Rocky coast with no known locations for zodiac landings; preliminary Inventory censuses achieved from ship.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 23, 2001	JC LGC	Endeavour
2.	December 12, 2002	RN	Endeavour

Assessment and monitoring. Preliminary censusing of nesting shags.

# Fauna — Flora — Censuses

Penguins & flying birds. Blue-eyed shags are confirmed breeders, 7 N1 noted during December 2001 pass-by.

Seals. None noted.

Flora. None noted.

# **Conservation Aspects**

Site sensitivities. None.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	<b>Participating Visitors</b>
14-Season Total	0	0

Proximate visitor sites. Hydrurga Rocks.

# **Melchior Islands (MELC)**

64°19'S, 62°57'W Magnetic declination: 15.5°E Inventory subarea: NW Inventory acronym: MELC Species Diversity: LOW Site Sensitivity: LOW

### Location — History — Features

A group of many low, ice-covered islands lying near the center of Dallman Bay in the Palmer Archipelago. They were first seen but not named by Dallman's German expedition in 1873-4. The islands were resighted and roughly charted by Charcot during the French Antarctic expedition, 1903-5, and he originally gave this name, that of a French Navy admiral, to the large, easternmost island. Later surveys proved that these were really two islands, now called Eta and Omega Islands, and Melchior has become established as the name for the entire group.

# Landing Characteristics

A paucity of wildlife. There is an Argentine research facility. Deeper offshore waters of Dallman Bay attract humpback whales, and there may be spectacular, grounded icebergs.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. January 26, 1996 RD RP Livonia

Assessment and monitoring. Preliminary surveying and censusing.

# Fauna — Flora — Censuses

Penguins & flying birds. None noted. Kelp gulls observed, but nests not discovered.

No site-specific penguin populations are listed in Woehler (1993, 1996).

Seals. Antarctic fur seals may haul-out on exposed rocks.

Flora. None noted.

#### **Conservation Aspects**

Site sensitivities. None noted.

#### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	1	100
1990-91:	0	0
1991-92:	3	249
1992-93:	1	17
1993-94:	2	203
1994-95:	1	14
1995-96:	0	0
1996-97:	3	118
1997-98:	1	257
1998-99:	3	30
1999-2000:	0	0
2000-01:	2	496
2001-02:	1	53
2002-03:	3	137
14-Season Total	21	1,674

*Proximate visitor sites.* There are no immediately proximate, alternative visitor sites. Cuverville, Orne, and Danco Islands lie well S.

# Mikklesen Harbor (MIKK)

63°54'S, 60°47'W Magnetic declination: 13.9°E Inventory subarea: NW Inventory acronym: MIKK Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

A small bay indenting the S side of Trinity Island between Skottsberg and Borge points, in the Palmer Archipelago. It was discovered by the Swedish Antarctic Expedition, 1901-4. The landing site is a small islet in the harbor, which is marked by a navigation tower and some unmanned huts.

# Landing Characteristics

Rocky islet that may be snow-covered well into the austral summer. Approaching zodiacs must beware of rocks in shallow waters surrounding the islet. Landings have taken place at both the N and SE ends of the islet.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 1, 1995	BH SF	W. Discoverer
2.	January 19, 1996	RD RP	Livonia
3.	January 19, 1996	RD RP	Livonia
4.	February 11, 1996	RP BH	Livonia
5.	February 3, 2001	RN	Cal Star

Assessment and monitoring. Preliminary surveying, censusing, mapping, and photodocumentation. More thorough ground-survey of floral communities needed.

#### Fauna — Flora — Censuses

*Penguins & flying birds.* Gentoo penguins are confirmed breeders. Recent gentoo penguin census data reported in Woehler (1993): 300 N3/4, 1984. Snowy sheathbills, kelp gulls, skuas, spp., and southern giant petrel noted, but breeding not confirmed.

Seals. Weddell and Antarctic fur seals were hauled-out during Inventory visits.

Flora. Small patch of moss, spp. noted, but island mostly snow-covered during Inventory visits.

#### **Conservation Aspects**

Site sensitivities. Gentoo penguins are easily approached and disturbed.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting gentoo penguins.

Do not impede penguins' access to and from the water.

#### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	1	85
1990-91:	0	0
1991-92:	1	72
1992-93:	7	258
1993-94:	0	0
1994-95:	3	160
1995-96:	2	76
1996-97:	1	72
1997-98:	5	341
1998-99:	3	152

	Zodiac Landings	<b>Participating Visitors</b>
1999-2000:	9	548
2000-01:	11	956
2001-02:	12	1,025
2002-03:	5	330
14-Season Total	60	4,075

Proximate visitor sites. Astrolabe Islands lies to the NE.

# Neko Harbor, Andvord Bay (NEKO)

64°50'S, 62°33'W Magnetic declination: 15.5°E Inventory subarea: NW Inventory acronym: NEKO Species Diversity: LOW Site Sensitivity: MODERATE

Note: Restricted space at elevation, in vicinity of nesting gentoo penguins

#### Location — History — Features

A small bay indenting the E shore of Andvord Bay, 6 miles SE of Beneden Head, along the W coast of the Antarctic Peninsula. First seen and roughly charted by Gerlache's Belgian Antarctic expedition, 1897-9, and named for Messrs. Chr. Salvesen's floating factory ship, *Neko*, which operated in the South Shetlands and Antarctic Peninsula in 1911-2 and 1923-4, and often used this bay. Unmanned Argentine hut on site.

# Landing Characteristics

A small beach leads to an elevated hillside with nesting gentoos, skuas, and kelp gulls. The skuas offer a strong defense of their nests and visitors are advised to keep clear. From the elevation of gentoo colonies 2 and 4, there are excellent, scenic views of Andvord Bay and the Gerlache Strait. The area seems prone to relatively frequent glacier calving.

### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	January 25, 1996	RD RP	Livonia
2.	February 3, 1996	RN RD RP BH	Livonia
3.	February 12, 1996	BH RP	Livonia
4.	January 23, 1999	RD ST	Vavilov
5.	December 16, 1999	SF	Shuleykin
6.	January 24, 2000	RN	Shuleykin
7.	December 11, 2002	RN	Endeavour
8.	January 11, 2003	SF	Endeavour
9.	January 25, 2003	RD	Endeavour
10.	February 14, 2003	MB	Endeavour

Assessment and monitoring. Preliminary surveying, censusing, mapping, and photodocumentation. More thorough ground-survey of floral communities needed.

## Fauna — Flora — Censuses

Penguins & flying birds. Gentoo penguins, kelp gulls, and skuas, spp. are confirmed breeders.

Antarctic Site Inventory censuses:

Gento	o penguir	1
934	C1	1996 Feb
625	C1	1999 Jan
844	N1	1999 Dec
1,072	N1	2002 Dec
1,042	N1	2003 Jan

Recent gentoo penguin census data reported in Woehler (1993): 250 C1, 1987.

Seals. Weddell and crabeater seals have hauled-out on the site during Inventory visits.

Flora. Snow algae and Prasiola crispa noted, with some patches of moss, spp. exposed after late summer snow melt.

#### **Conservation Aspects**

Site sensitivities. Nesting gentoo penguins, skuas, spp., and kelp gulls are easily approached and disturbed.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting gentoo penguins.

Do not impede penguins' access to and from the water.

Stay clear of skua and gull nesting territories.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	8	357
1993-94:	6	275
1994-95:	12	560
1995-96:	21	963
1996-97:	36	2,348
1997-98:	27	1,737
1998-99:	42	3,613
1999-2000:	58	4,794
2000-01:	51	4,383
2001-02:	51	4,233
2002-03:	70	5,827
14-Season Total	382	29,090

*Proximate visitor sites.* Danco Island, Cuverville Island, Orne Islands, and Georges Point, Rongé Island are the closest alternative visitor sites.



# **Orne Islands (ORNE)**

64°40'S, 62°40'W Magnetic declination: 15.5°E Inventory subarea: NW Inventory acronym: ORNE Species Diversity: MEDIUM Site Sensitivity: MODERATE

# Location — History — Features

A group of small islands lying close to Rongé Island, off the W coast of the Antarctic Peninsula. They were roughly surveyed in 1898 by Gerlache's Belgian Antarctic expedition. The name Orne apparently was used by Norwegian whalers, and then subsequently by the Scottish geologist David Ferguson, who worked this area in 1913. The largest island is where visits take place. It forms a rocky dome up to 75 meters high at its summit, with moderate slopes from the shoreline to a long summit ridge of mainly bare rock. The NW side of the island has a steep snow face. The surface may be largely covered with deep snow through late December. The rocky surface on the NE tip of the island slopes moderately steeply upward to one of many colonies of nesting chinstrap penguins. The areas occupied by chinstrap penguins consist of a cryoturbated (i.e. broken and churned by freezing and thawing) rock covered with thin, angular plates of rock and some pebbly material. These areas are coated with abundant guano. This landing site had no beach, with bare rock extending directly down into the water. Rocks exposed along the S end of the island are glacially smoothed and polished, but the upper slopes, where the chinstraps and shags nest are cryoturbated, with thin, angular fragments littering the ground. Some zones of flat-pebbly-looking materials in upper zones look almost like beach materials. They could represent a high-level raised beach.

#### Landing Characteristics

Uncharted water near shore. Hazardous rocks along the shoreline may be exposed, depending on the tide. Landings on slippery cobble at N end of the largest in a small group of islands, which extends for one mile N to S, with slopes rising moderately to a domed summit. Snow cover may be extensive and hiking difficult. Crevassed snowfields and cliff edges on NW and S ends. Snow cornices on the shoreline are unstable and treacherous.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 16, 1994	RN BH	Explorer
2.	January 13, 1995	RN RD	Livonia
3.	January 24, 1995	RN RD	Explorer
4.	November 27, 1995	RN LB	Explorer
5.	January 25, 1996	RD RP	Livonia
6.	December 4, 1996	RN SF	W. Discoverer
7.	December 4, 1997	RN	Explorer
8.	November 27, 1998	RN SF	Explorer
9.	December 6, 1998	RN SF	Explorer
10.	November 27, 1999	LB BP	Cal Star
11.	December 16, 1999	RN	Cal Star
12.	January 21, 2000	RD	Explorer
13.	January 23, 2000	RN	Shuleykin
14.	December 14, 2000	RN	Cal Star
15.	January 23, 2001	RN RD	Cal Star
16.	December 24, 2001	JC LGC	Endeavour
17.	January 27, 2002	RD LS	Endeavour
18.	February 7, 2002	MM	Endeavour
19.	February 15, 2002	RN	Endeavour
20.	December 9, 2002	RN	Endeavour
21.	February 14, 2003	MB	Endeavour

Assessment and monitoring. Surveyed, mapped, and photodocumented (terrestrial).Regular, site-wide censusing of chinstrap penguins and, on the S end, the cliff edges where blue-eyed shags formerly bred. More thorough ground-survey of floral communities needed.

#### Fauna — Flora — Censuses

*Penguins & flying birds.* Chinstrap penguins, and south polar and hybrid skuas are confirmed breeders. Blueeyed shags last bred in December 1998. Snowy sheathbills have been found in a sea cave on this site, and are strongly suspected of breeding. Southern giant petrels have been observed resting on site, but no nests have been discovered.

Recent chinstrap penguin census data reported in Woehler (1993) and Woehler & Croxall (1996): 420 N1, 1994, a decrease from the 1987 estimate of 860 pairs, but slightly greater the 1985 estimate of 340 pairs.

Antarctic Site Inventory censuses:			
Chinst	rap peng	guin	
342	N1	1996 Dec	
370	N1	1998 Nov	
361	N1	1998 Dec	
421	N1	1999 Nov	
332	N1	1999 Dec	
484	C1	2000 Jan	
396	N1	2000 Dec	
631	C1	2001 Jan	
338	N1	2002 Dec	
471	C1	2003 Feb	
Blue-eyed shag			
15	N1	1994 Dec	
9	N1	1995 Nov	
5	N1	1996 Dec	
3	N1	1997 Dec	
1	N1	1998 Nov	
1	N1	1998 Dec	
0	N1	1999 Dec	
0	N1	2000 Dec	
0	N1	2000 Jan	
0	N1	2002 Dec	

*Seals.* Weddell and crabeater seals have hauled-out on either the island where visits occur or on edges of the smaller islets W of LANDSEND. Antarctic fur seals have been found in snow fields below and S of chinstrap penguin colonies 8a-d.

*Flora*. Extensive snow covers the island, often into late summer, and snow algae is evident. *Xanthoria*, spp. and other crustose lichens noted on exposed rocks at higher reaches, with some patches of moss, spp. and *Prasiola crispa*.

#### **Conservation Aspects**

*Site sensitivities.* Chinstrap penguins nest in widely scattered, small colonies on W side, the first located just uphill from the N landing beach; they are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks at the nest, then in crèche. Blue-eyed shags formerly nested on ridges at the S end, which are not easy to access; last recorded nesting in 1998. Skuas nest on widely scattered territories at the highest elevations and are easily approached and disturbed, particularly, later in the season (from mid-January) when adults are fiercely protecting young.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting penguins.

Avoid and stay clear of any prospecting shags in vicinity of S end cliffs.

Avoid and stay clear of skua territories.

Stay clear of — and do not hike upon or wander over — crevassed snowfields, cliff edges, or snow cornices.

# **Visitation Aspects**

	Zodiac Landings	<b>Participating Visitors</b>
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	2	201
1993-94:	1	54
1994-95:	7	368
1995-96:	1	42
1996-97:	0	0
1997-98:	0	0
1998-99:	0	0
1999-2000:	1	1
2000-01:	1	6
2001-02:	0	0
2002-03:	5	257
14-Season Total	18	929

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

Proximate visitor sites. Cuverville Island lies due E, and Georges Point, Rongé Island, a very short distance S.



# **Portal Point (POPT)**

64°30'S, 61°46'W Magnetic declination: 14.8°E Inventory subarea: NW Inventory acronym: POPT Species Diversity: LOW Site Sensitivity: LOW

### Location — History — Features

This narrow point in the NE part of the Reclus Peninsula, on the W coast of the Antarctic Peninsula, extending from the Antarctic Peninsula into Charlotte Bay. It is where a Falkland Islands dependency Survey hut was established in 1956. The hut has now been removed to the Falklands Islands Museum in Stanley. Portal Point served as the gateway for a route to the polar plateau. Immediately behind the low point on which the hut was located the (usually snow-covered) land rises steeply upslope toward the plateau. The topography of the surrounding area is mountainous, with nunataks rising through the ice. Coastal outcrops and those beneath the hut are glacially polished and striated. On both sides of this site there are large glacial tongues extending down to sea level from the plateau's ice cap. These terminate against the sea in high ice cliffs, which expose crevasses showing blue ice inside. The steep glacial trough produces rugged-looking ice falls in the lower zones of these glaciers. Bare rock is exposed only along the shore, beneath an overhanging cover of snow and ice. The sea washes directly onto bare bedrock. There are many rounded boulders above and beneath the waterline. Charlotte Bay is often filled with icebergs.

#### Landing Characteristics

There is a paucity of wildlife in the vicinity, save for seals on floes in Charlotte Bay, and occasional, straggler kelp gulls, skuas, shags, or penguins. The main attraction was the British Antarctic Survey hut, which now has been removed to the Falklands Islands Museum. The slope above the point has been used by visitors for snow-sliding, and at its highest point, there are excellent views of Charlotte Bay.

## **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 16, 1994	RN SF	Explorer
2.	November 21, 1995	RN LB	Explorer
3.	December 1, 1995	BH SF	W. Discoverer
4.	January 26, 1996	RD RP	Livonia
5.	December 6, 1998	RN SF	Explorer

Assessment and monitoring. Preliminary surveying, censusing, and photodocumentation (terrestrial).

### Fauna — Flora — Censuses

*Penguins & flying birds.* No breeding species confirmed directly on site. Antarctic brown skuas, southern giant petrels, and gentoo penguins noted in the vicinity. Kelp gulls and blue-eyed shags breed elsewhere in Charlotte Bay. No site-specific penguin populations are listed in Woehler (1993) or Woehler & Croxall (1996).

Seals. Weddell and crabeater seals may haul-out on the rocky edges of this site.

Flora. Snow covered during Inventory visits; no flora visible.

#### **Conservation Aspects**

Site sensitivities. None.

#### Visitation Aspects

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	1	93
1991-92:	0	0
1992-93:	8	592
1993-94:	10	781
1994-95:	8	641
1995-96:	14	890

	Zodiac Landings	<b>Participating Visitors</b>
1996-97:	5	370
1997-98:	4	118
1998-99:	6	328
1999-2000:	10	487
2000-01:	10	590
2001-02:	10	715
2002-03:	4	284
14-Season Total	90	5,889

*Proximate visitor sites*. Hydrurga Rocks is to the N. The Errera Channel and the Cuverville, Danco, Orne, and Rongé (Georges Point) Island visitor sites lie to the W.

# Priest Island (Goetschy Island), Peltier Channel (PRIE)

64°52''S, 63°31'W Magnetic declination: 16.2°E Inventory subarea: NW Inventory acronym: PRIE Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

Low rocky island lying near the middle of Peltier Channel in the Palmer archipelago. First charted and named as Goetschy Island by Charcot's French Antarctic expedition, 1903-5.

# Landing Characteristics

Rocky coast with no known locations for zodiac landings; preliminary Inventory censuses achieved from ship.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. December 14, 2001 RN SF CE Endeavour

Assessment and monitoring. Preliminary censusing of nesting shags.

# Fauna — Flora — Censuses

Penguins & flying birds. Blue-eyed shags are confirmed breeders, 8 N1 noted during December 2001 pass-by.

Seals. None noted.

Flora. None noted.

# **Conservation Aspects**

Site sensitivities. None

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
14-Season Total	0	0

Proximate visitor sites. Jougla Point, Goudier Island, Dorian Bay.

# **Py Point (PYPT)**

64°53'S, 63°37'W Magnetic declination: 16.2°E Inventory subarea: NW Inventory acronym: PYPT Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

Point forming the S extremity of Doumer Island. Discovered by Charcot's French Antarctic expedition of 1903-05, and named for the president of the French Chamber of Commerce in Buenos Aires at that time.

# Landing Characteristics

Onto slippery cobble and rock outcrops in vicinity of Chilean *refugio*. Bulk of nesting gentoos located inland and N, more than 0.5 kilometers beyond the *refugio*.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. February 5, 2001 RN Cal Star

Assessment and monitoring. Preliminary surveying, censusing, and photodocumentation (terrestrial). More thorough ground-survey of floral communities needed.

# Fauna — Flora — Censuses

Penguins & flying birds. Gentoo penguins and south polar skuas are confirmed breeders. Recent Doumer Island gentoo penguin census data reported in Woehler (1993): 1,500 N1, 1983.

Seals. None noted.

Flora. Extensive snow algae noted.

#### **Conservation Aspects**

Site sensitivities. Gentoo penguins are easily approached and disturbed.

Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting penguins.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	0	0
1993-94:	0	0
1994-95:	0	0
1995-96:	0	0
1996-97:	0	0
1997-98:	0	0
1998-99:	0	0
1999-2000:	0	0
2000-01:	2	93
2001-02:	0	0
2002-03	0	0
14-Season Total	2	93

*Proximate visitor sites.* US Palmer Station (Arthur Harbor), Dorian Bay, Goudier Island, Jougla Point; and Almirante Brown Station and Waterboat Point in Paradise Bay.

# Siffrey Point (SIFF)

63°13'S, 57°13'W Magnetic Declination: 11.2° E Inventory subarea: SO Inventory acronym: SIFF Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

A low, rocky point projecting from the N coast of Trinity Peninsula, 6 miles WNW of Cape Dubouzet. "Cap Siffrey" was named by Capt. Jules Dumont d'Urville in 1838. Shore covered by snow during Antarctic site Inventory visit.

# Landing Characteristics

On slick boulders in a small cove, which were snow covered during the Inventory visit. .

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. January 21, 2003 RD Endeavour

Assessment and monitoring. Preliminary surveying. No photodocumentation.

# Fauna — Flora — Censuses

Penguins & flying birds. No confirming breeding. Many snow petrels observed flying over high ridges.

Seals. None noted.

Flora. Moss, spp., Prasiola crispa, and crustose and fruticose lichens, spp. noted.

# **Conservation Aspects**

Site sensitivities. None noted

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-2002:	0	0
2002-03	1	124
14-Season Total	1	124

Proximate visitor sites. Gourdin Island.

# Sprightly Islands Vicinity (SPRI)

64°17'S, 61°04'W Magnetic declination: 14.3°E Inventory subarea: NW Inventory acronym: SPRI Species Diversity: LOW Site Sensitivity: LOW

# Location — History — Features

Sprightly Island lies one mile NW of Spring Point in Hughes Bay, on the W coast of the Antarctic Peninsula. It was first surveyed by Gerlache in 1897-9, and is named for a British sealing vessel that visited this area in 1824-5. Inventory researchers visited the small islet just N of Sprightly Island.

# Landing Characteristics

A small island with fractured, metamorphic rocks that are easy to climb.

#### **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1. January 26, 1996 RD RP Livonia

Assessment and monitoring. Preliminary surveying and censusing. More thorough ground-survey of floral communities needed.

#### Fauna — Flora — Censuses

Penguins & flying birds. Chinstrap penguins are confirmed breeders. Recent chinstrap penguin census data reported in Woehler, 1993: 60 N4, 1990.

Seals. No seals observed during brief Inventory visit.

Flora. Xanthoria, spp., Prasiola crispa, and two small clumps of Deschampsia antarctica noted.

# **Conservation Aspects**

Site sensitivities. None.

# **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	0	0
1990-91:	0	0
1991-92:	0	0
1992-93:	0	0
1993-94:	0	0
1994-95:	0	0
1995-96:	1	48
1996-97:	0	0
1997-98:	0	0
1998-99:	0	0
1999-2000:	0	0
2000-01:	0	0
2001-02:	0	0
2002-03:	0	0
14-Season Total	1	48

Proximate visitor sites. Hydrurga Rocks lie NW.

# Waterboat Point, Paradise Bay (WATE)

64°49'S, 62°51'W Magnetic declination: 15.0°E Inventory subarea: NW Inventory acronym: WATE Species Diversity: LOW Site Sensitivity: MODERATE

Note: Restricted visitor space.

### Location — History — Features

This is the low, westernmost termination of the peninsula between Paradise Harbor and Andvord Bay on the W coast of the Antarctic Peninsula. It is the site of the Chilean Station González Videla. Waterboat Point is separated from the mainland at high water. The Belgian Antarctic Expedition of 1898 first surveyed the coast in this vicinity. This particular point was surveyed and named by T. W. Bagshawe and M. C. Lester who lived here in a waterboat from 1921-22, while conducting studies of the on-site penguins. The area where they worked is roped off and noted by historical markers. The Station area is about 10-15 meters above sea level. The exposed face of a crevassed glacier lies just beyond the tombola — the causeway that connects the Station area to the mainland at low tide. The area around the edges of Paradise Bay is ruggedly mountainous and mainly covered with glaciers and snow, leaving a few nunataks and cliffs exposed. There are coast-line exposures of bedrock at the edge of the snow cover. There is no well-developed beach visible along the present shoreline, where bare bedrock is exposed at sea level below the snow and ice.

On site is an Historic Site and Monument, the hut in which the pioneering penguin biologists Bagshawe and Lester overwintered in 1921-22. The remains include the base of their waterboat, the roots of door posts, and an outline of the hut and extension; this two-man expedition was the smallest expedition to ever overwinter in Antarctica. Another Historic Site and Monument is a shelter erected in 1950 to honor Gabriel González Videla, the first Head of State to visit the Antarctic.

### Landing Characteristics

The low, westernmost termination of the peninsula between Paradise Harbor and Andvord Bay, and site of the Chilean station *Gabriel Gonzalez Videla*, which is off limits to visitors. Separated from the mainland at high water. Landings on rocks or station jetty at N tip, or on rocks at far end of inner bay ("Coal Point"), on the mainland, in the vicinity of breeding penguins and a derelict station building. Restricted visitor space. Hazardous rocks in the inner bay may be exposed, depending on the tide. May be extensive snow cover early (perhaps, into January); extensive guano, mud, and snow melt later; and at all times slippery. Extensive glacier and snow fields (potentially crevassed) on mainland side of the inner bay. Snow cornices on the shoreline are unstable and treacherous.

# **Antarctic Site Inventory Effort**

Visits by Antarctic Site Inventory researchers, 1994-2003:

1.	December 7, 1994	RN RD RP BH	Alla Tarasova
2.	February 3, 1996	RN RD RP BH	Livonia
3.	November 23, 1997	RN SF	W. Discoverer
4.	November 27, 1998	RN SF	Explorer

Assessment and monitoring. Surveyed, mapped, and photodocumented (aerial and terrestrial). Regular site-wide censusing of gentoo and chinstrap penguins.

#### Fauna — Flora — Censuses

*Penguins & flying birds.* Gentoo penguins, chinstrap penguins, and snowy sheathbills are confirmed breeders. Kelp gulls, skuas, spp., and blue-eyed shags also noted, but do not appear to nest immediately on site.

Antarctic Site Inventory censuses:

Chinstrap penguin (site-wide)

0	111	1774 DCC
2	C1	1996 Feb
8	N1	1997 Nov
4	N1	1998 Nov

Gentoo penguin (site-wide)

# 1,455 N1 1997 Nov

Recent penguin census data reported in Woehler (1993): gentoo penguin, 700 C1, 1986; and chinstrap penguin, 28 N1, 1989. The number of chinstrap penguins has declined steadily since Bagshawe & Lester's surveys in 1921-22 (350 A1, 1922, where the research station is now situated, and 225 A1, 1922, at Cola Point).

Seals. No seals observed.

Flora. Snow algae common on glacier front.

#### **Conservation Aspects**

*Site sensitivities.* Restricted visitor space among the gentoo penguins nesting in the vicinity of the station, around the inner bay, and on the mainland; they are easily approached and disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks at the nest, then in crèche. Very restricted and cramped visitor space among the few chinstrap penguins still nesting at the N tip of the inner bay; they cannot be approached easily, but are easily disturbed, especially in November and early December when adults will be incubating eggs; subsequently, adults will be guarding and provisioning chicks. Snowy sheathbills nesting in vicinity of the station and at the derelict station building on the far side of the bay are easily approached and disturbed.

#### Pointers for avoiding disruptions.

Walk slowly and carefully around nesting, crèching, or molting penguins.

Do not impede penguins' access to and from the water.

If extensive snow cover, avoid — and do not walk in or block — trails that penguins have made through the snow.

Avoid and stay clear of chinstrap penguins nesting at the N tip of the inner bay.

Walk slowly and carefully around nesting sheathbills.

If snow-, ice-, or mud-cover is extensive, strictly control visitors by organizing guided groups, all following the same path, avoiding any penguin trails, and not allowing any free wandering.

Stay clear of — and do not hike upon or wander over — the glacier, snowfields, or snow cornices.

#### **Visitation Aspects**

Numbers of tourist zodiac landings and participating visitors, 1989-2003:

	Zodiac Landings	Participating Visitors
1989-90:	9	1,038
1990-91:	10	1,965
1991-92:	15	2,398
1992-93:	19	1,671
1993-94:	17	3,248
1994-95:	20	1,559
1995-96:	14	2,384
1996-97:	12	1,095
1997-98:	12	2,998
1998-99:	20	3,379
1999-2000:	15	2,871
2000-01:	17	3,299
2001-02:	15	4,082
2002-03:	13	2,961
14-Season Total	208	39,948

Proximate visitor sites. The Almirante Brown Station is to the S, further into Paradise Bay.



# SOUTHWEST (SW) Subarea

# SUBAREA MAP

# **SITE DESCRIPTIONS (13)**

- Blaicklock Island (BLAI)
- Booth Island (BOOT)
- Detaille Island (DETA)
- Fish Islands (FISH)
- McCall Point (MCAL)
- Petermann Island (PETE)
- Pléneau Island (PLEN)
- Pourquoi-pas Island (POUR)
- Prospect Point (PROS)
- Shumskiy Cove (SHUM)
- Stonington Island (STON)
- Vernadsky Station (VERN)
- Yalour Islands (YALO)

The Antarctic Site Inventory subarea that is furthest south, which has the world's southernmost breeding gentoo penguins. Extensive, beautiful ice scenery and often caked with brash, perhaps multi-year ice. In the Antarctic peninsula, few shipboard expeditions proceed further south than the Lemaire Channel, Petermann Island, Vernadsky Station, and the Yalour Islands.

# Keys:

For acronymns of Antarctic Site Inventory researchers, see Appendix 1 p. 39.

For codes relating to penguin/seabird census/population data, see Table 3, p. 49.