



The Antarctic Site Inventory

2006 Annual Report from Oceanites, Inc.

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To all Oceanites supporters and friends —

As this amazing year draws to a close, I am very happy to report that the Antarctic Site inventory database is contributing in major respects, as hoped and intended, to Antarctica's long-term conservation. One example — the site guidelines adopted by the Antarctic Treaty Parties in 2006, all of which are based on the Inventory's database. Another — our ongoing monitoring effort at Petermann Island, where we're tracking effects of the warming Antarctic Peninsula environment.

The important reality that it is your assistance, nurturing, and attention that keep our work going — and everyone in our small family is grateful for your support. Uniquely, Oceanites remains the only non-governmental organization collecting data to ensure Antarctica's future as a bastion of peace and science.

Collectively, we have much of which to be proud — and I'm truly looking forward to a bright future. Antarctica forever!

With sincere best wishes,

Ron Naveen
President, Oceanites, Inc.

December 1, 2006

On The Front Lines Of Global Warming

Poignantly, at our Petermann island campsite, there's the reality of being — pardon the pun — in the "hot bed" of global warming. It was fairly obvious, when the Oceanites team arrived on 3 November to begin the 2006-07 field season, that there was 2-3 metres less snow than expected. Also, compared to previous Antarctic springs, more of the island's rocky outcrops were visible, barren of snow well ahead of schedule.

These were rude forebodings about our forthcoming penguin nest surveys and crude reminders that the Antarctic Peninsula climate is changing. Oceanites researchers are witnessing some dramatic changes, up close and personally.

The oldest, most complete set of Antarctic meteorological data come via the Ukrainian Vernadsky Station (formerly, the UK Faraday Station), located a mere six miles south of Petermann — and it's warming faster in this region than anywhere else on Earth.

Over almost six decades, winter temperatures have warmed by 5°C (9°F) and, on a yearly basis, by 3°C (5°F). This is enormous. By comparison, in more temperate climates, present worries relate to only a 1-2°C increase since the Industrial Revolution.

More notably, Petermann's penguin populations have totally flipped. When Jean-Baptiste Charcot, the eminent French explorer, overwintered in 1909, he recorded an estimated 1,000 Adélie penguin nests and fewer than 60 gentoo penguin nests.

Almost a century later, the Adélies have declined by more than 50%, to 410 active nests according to our 2006 nest census. Gentoos, by contrast, have increased dramatically and exponentially, to 2,293 active nests this season.

These trends mirror what is presently occurring throughout the Antarctic Peninsula — gentoos are thriving and apparently adapting as temperatures increase, but not Adélies. Why?

Gentoos are larger (they are the third largest of all penguins), they dive deeper than Adélies, and, at least in this part of the Antarctic, they have a more extensive diet (krill and fish) than Adélies (primarily, krill).

At Petermann, subtle differences abound. We've begun to notice a few Adélies excreting white guano, a sure indication of fish or other invertebrates in their diet; so, potentially, we may be witnessing their shift to consuming other prey. We're also seeing gentoos beginning to nest in areas that, formerly, were exclusive to Adélies.

More studies, censusing, and monitoring are needed and there remain fundamental, unanswered questions about the ultimate fate of Antarctic Peninsula Adélies.

Adélies, like emperor penguins, are true Antarctic denizens inextricably tied to ice and cold. Some researchers have noted a decline in

Adélies' overwinter survival, with a competing suggestion they're moving farther south in the Peninsula or, perhaps, east into the icier Weddell Sea.

At this moment, the fairest statement is that considerable speculation abounds and that many more studies and censuses need to be accomplished. We'll keep you posted as developments arise.

The Oceanites Website

The educational Oceanites website launched in late October 2006 — please visit us at:

www.oceanites.org

We're immensely grateful to The Tinker Foundation and The Jeniam Foundation, whose generous support helped us bring the website to life. And our many thanks to Bill Connolly of Stepping Stones, Inc. in Portland, Oregon for his website design and vision, which will enable us to readily disseminate a large volume of relevant and necessary data and information, maps, and photography to an ever-expanding international audience.



Mindful that the Treaty operates concomitantly in four languages, the website aims in a similar direction — an English-language version initially, with other language-versions to follow. Ultimately, the website will contain a virtual classroom allowing interested adults and children to "plug into" a wealth of slide show or PowerPoint presentations, videos, and downloadable materials about key Antarctic subjects.

In addition, there will be a simulated webcam allowing long gazes into the lives of gentoo and Adélie penguins, blue-eyed shags, and leopard seals.

As noted in our 2005 Annual Report, Oceanites believes that "information is power" and, by making a plethora of conservation-oriented information easily available, that we potentially nurture Antarctica's conservation for posterity.

In a fashion, we see our website as the fastest, most reliable means of disseminating everything anyone ever wanted to know about this glorious continent to the large community of Antarctic diplomats, scientists, conservation organizations, tour ship and yacht operators and visitors, and the general public.

We envision the website as a democratic means of binding and connecting communities and interests. As said, please take a look, visit regularly for video, photographic, and textual updates — and forward any and all suggestions you might have.

Antarctic Site Inventory Update

During the 2005-06 field season, Antarctic Site Inventory researchers made an additional 65 visits to various locations in the Antarctic Peninsula. Cumulatively, over twelve seasons, from November 1994 through March 2006, the Inventory now has made 703 visits to 103 Antarctic Peninsula locations.

Once again, Inventory results were summarized and updated in an Information Paper presented by the US

at the 2006 Antarctic Treaty Consultative Meeting.

We are pleased to note that, in its report to this Meeting, the Treaty's Committee On Environmental Protection (CEP) acknowledged the ongoing importance of long-term monitoring of biological indicators at visited sites and specifically welcomed the work of Oceanites and the Antarctic Site Inventory in these regards. CEP further noted that the Inventory regularly

censuses the sites subject to the visitation guidelines CEP referred to member countries for approval (see next news item), and that continued reporting of the census results would assist CEP's future review of these guidelines.

Such praise is exceedingly rare in these sessions and, for sure, we're honored that our work has been given such prominent attention. More humbling is that the

Inventory database is viewed by so many interests as critical to ongoing efforts of member nations to fulfill their responsibilities under the Antarctic Treaty.

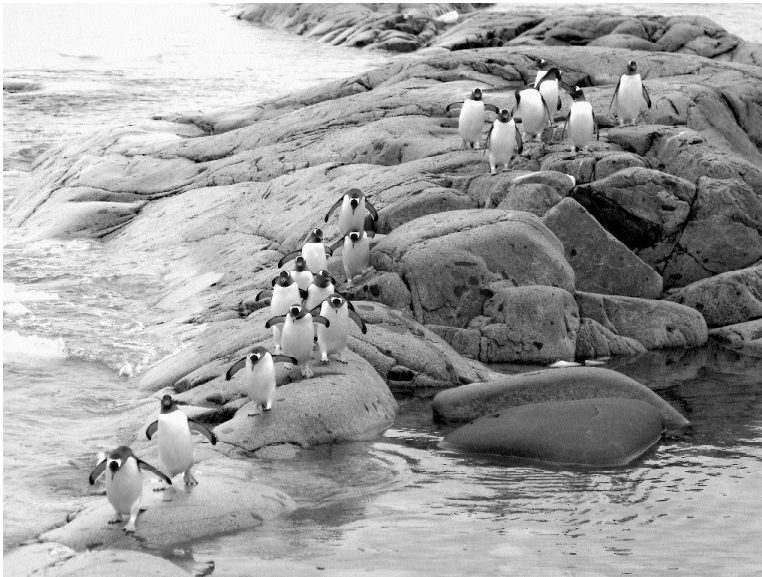
The Inventory's 13th field season — including our Petermann Island field camp and our shipboard surveys from the *National Geographic Endeavour* — began in November 2006.

Our roster of researchers for the new season includes: Ron Naveen, Steven Forrest, Rosemary Dagit, Ian Bullock, Megan McOsker, Louise Blight, John Carlson, Iris Saxer, Mike Polito, Eric Woehler, Heather Lynch, and Thomas Mueller.

Site Guidelines Adopted by Antarctic Treaty Parties

At the 29th Antarctic Treaty Consultative Meeting, which convened in Edinburgh, Scotland (UK) this past June, Treaty nations adopted eleven site guidelines suggesting best visitation practices at key Antarctic Peninsula visitor locations.

The United Kingdom initiated this management effort at the 26th Consultative Meeting in Madrid in 2003.



Importantly, for Oceanites, the Treaty system relied upon the extensive database and site-descriptive information compiled by the Antarctic Site Inventory project. Without question, we are thrilled that our data collection efforts, over so many years, have been utilized in this manner.

Final, colorful versions of the site guidelines may be accessed via the Oceanites website:

<http://www.oceanites.org/visiting/index8.php>

Collaboration With The Fagan Lab

Oceanites and the Inventory have begun what we trust will be a long and fruitful association with Dr. William Fagan's Conservation Biology, Community Ecology, and Theoretical Ecology Lab at the University of Maryland.

As noted in the global warming piece above, there remain a slew of unanswered questions about ecological connections in the Antarctic Peninsula: What's causing changes being detected by the Antarctic Site Inventory?

The rising temperatures in the Peninsula region are a prime culprit. But, in addition, is diminishing winter sea ice another potential cause? Or diminishing populations of key prey species like krill and fish? Might the distribution of these prey populations be changing?

The stark decline of Adélie penguins in the Peninsula is only one aspect of this very complicated puzzle.

Dr. Fagan's lab has been synthesizing long-term data sets involving a wide array of international habitats and fauna, and this will be the first time that such sophisticated, statistical and global information system analyses will be attempted in the Antarctic.

This new association allows Oceanites to work with a coterie of new colleagues. Heather Lynch, who's assisting the work at Petermann Island this November and December, recently received her Ph.D. degree at Harvard University and has joined the Fagan Lab as a post-doctoral fellow. Thomas Mueller, who'll be at Petermann Island in January and February, is a Ph.D. candidate at The Fagan Lab, his research interests being spatial ecology, the conservation of Burmese elephants, Mongolian gazelles — and now, of course, penguins.



The road ahead will marry the Antarctic Site Inventory database with other, long-term Antarctic databases regarding a variety of biological and physical attributes — and, for sure, we will keep you apprised of progress.

The Oceanites Site Guide To The Antarctic Peninsula, 2d Edition

If you haven't yet obtained a copy, the fully revised, second edition of the *Oceanites Site Guide To The Antarctic Peninsula* is readily available. It contains 128 pages, full descriptions of 40 key sites, four regional maps, 16 orientation maps, "Fact Packs" about the Antarctic Treaty, ice, krill, penguins, and vegetation, and more than 115 photographs.

In the US, copies may be obtained via Longitude Books in New York (<http://www.longitudebooks.com/>).

In South America, copies may be obtained via Boutique del Libro, San Martin 1129, Ushuaia, Argentina, (54) 2901-424750 (boutiqueushuaia@speedy.com.ar).

For those traveling this season in Antarctica, the *Site Guide* also is being sold by the UK Antarctic Heritage Trust in the bookstore/shop at the restored hut on Goudier Island in Port Lockroy.

Contact Numbers

If you or your family's foundation would like to make a definitive, long-term contribution to assist the long-term conservation of Antarctica, please contact Ron Naveen and Oceanites directly at:

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Cover — Tobogganing Adélie penguin at Petermann Island
p.2 — Solar parhelion (ice crystal halo) over French Passage
p.3 — Gentoo penguins returning to Petermann Island
p.4 — Leopard seal in Penola Strait