Clean Getaway?: Antarctica Tourism Snowballs, but Is It Helping or Harming "the Last Place on Earth?"

The Clelia II's cruise ship's recent troubles in Southern Ocean waters resurfaces questions about tourism regulation in the Antarctic

By Mary Beth Griggs | Wednesday, December 22, 2010 | 4

On December 7, 2010, the cruise ship Clelia II had begun the final crossing of its weeklong Antarctic cruise. What remained of the journey was the notoriously dangerous Drake Passage between Antarctica and South America. And that day the ship was hit by a massive wave that shattered one of its bridge windows and damaged the Clelia's navigational equipment.

Its 88 passengers were primarily American retirees, many of whom had paid more than $9,000 for their Antarctic adventure, and whose daylong stranding in the rough waters of the Drake Passage was the most dangerous thing that happened on their adventure in the Southern Ocean. Luckily for them—and the surrounding ecosystem—the ship
was quickly repaired, averting a tragedy the humans on board and the surrounding wildlife that would have been affected if the ship had sunk and/or spilled fuel.

Antarctica, long ruled by penguins and seals, has now become a popular destination for thousands of moderately affluent tourists annually: More than 35,000 scientists, workers and leisure travelers visited the continent during the last Antarctic summer, which stretches from November to March. Some tourists go to witness the amazing landscape and unique flora and fauna, whereas others, seeking to capture the adventurous spirit of long-dead explorers, will climb mountains or run marathons on the ice. But all these adventurers travel there on cruise ships or airplanes carrying large amounts of fuel that could unleash an environmental disaster if spilled. And in the event of a crash, the limited resources available in the Antarctic would impede a full-scale cleanup. Equipment and crew to address a disaster would also have to be flown and shipped in from thousands of miles away.

Preserving Antarctica’s icy environs is a concern for environmentalists who are sorely disappointed with how humans have cared for the biodiversity on Earth's other six continents. Tourism detractors also point out the huge expense and risk associated with rescue missions in the frigid Antarctic. Supporters of Antarctic travel maintain that tourists become eco-ambassadors for the frozen continent. They say visitors can share accounts of its beauty and raise money and awareness of how climate change might affect its environment.

"[Antarctic] tourism as it is today developed organically, on its own," says Ricardo Roura of the Antarctic and Southern Ocean Coalition, an environmental organization. "It was not something that was planned in any way." The coalition is wary of the impact that the sheer volume of unplanned-for tourists could have on wildlife, potentially disrupting animal behavior or changing habitats. Added to these concerns are worries about the damage that could occur should an accident happen.

And accidents do happen: In addition to the Clelia's incident in early December, its propeller was severely damaged a year ago when it struck rocks below the waterline. Fortunately, this incident resulted in no known environmental impact or casualties. In 2007, however, the Explorer, a ship with an excellent safety record in Antarctic waters, struck an iceberg and sank. All 154 people on board were rescued by a nearby research vessel and a Norwegian cruise ship. It lies now under 1,000 meters of water, but in the days after the incident an oil slick covering 3.5 square kilometers appeared at the site, and ships in the area reported seeing life vests and other flotsam floating nearby. To this day, no one knows the full extent of environmental damage due to the sinking of the Explorer. "We know that there was [oil] spillage, but we don't know the consequences," Roura says.

"Tourism is certainly one of the most important policy issues in Antarctica today," says Evan Bloom, head of the U.S. delegation to the Antarctic Treaty.

A self-regulating community
The issue of environmental regulation on Earth's southernmost continent is complicated by the fact that Antarctica has no government, no police and no military; instead it is governed through the cooperation of countries that have agreed to the Antarctic Treaty. Signed in 1959 by 12 nations, the treaty was a product of the Cold War. Its primary goal was to prevent nuclear testing and the militarization of the continent. It set aside Antarctica as an international territory where peace and science could flourish. None of the original signatories could have dreamed that the treaty would grow to 43 member countries, or that Antarctica would one day become a tourist destination.

The treaty recognized that scientists would make visits to the icy continent, but didn’t anticipate sightseeing expeditions. "I've been on the program for 20 years, and back then tourism was only for the wealthy," says Polly Penhale, a member of the U.S. Delegation to the treaty and an environmental officer with the National Science Foundation. That changed dramatically in the years after the Soviet Union broke up, when former Soviet icebreakers were reborn as passenger vessels. Suddenly, traffic to the last place on Earth increased from well under 5,000 visitors annually to numbers in the tens of thousands.

In the absence of regulation by a single government private organizations have been tackling environmental issues through self-regulation. The primary private regulating force in Antarctic tourism is the International Association of Antarctic Tour Operators (IAATO), which has provided environmental and safety guidelines to its members since 1991. IAATO's membership consists of tourism companies that have signed on to IAATO's environmental and
safety guidelines. It has also provided the Antarctic Treaty with sample environmental guidelines and much of the data that the treaty uses in its attempts to create a cohesive set of legally binding tourism regulations.

One of IAATO's major achievements was preventing the introduction of invasive species to Antarctica by enforcing a boot washing and clothing decontamination policy (pdf) for all ship passengers who disembark on the continent. The procedure has been so effective that even scientists that live and work in the Antarctic have adopted it. "We want to do everything right so we can continue to take people down there," says Steve Wellmeier, executive director of IAATO.

But not all tourism operators do the right thing. "There are entities that do things the right way, and those that don't," Penhale says. "Not all tourists that go to Antarctica [travel with] IAATO members."

And although ship-based tourism companies have been the major drivers of environmental and safety guidelines, there are other ways to get to Antarctica. People can elect to fly in, landing at remote camping outposts run by adventure tourism companies that contend with the hazard of fierce winds instead of ice. These land-based tourism operations only appeared recently, long after the tourism boom of the 1990s, and little data as to their environmental impact or safety record exists—even less, in fact, than the scant amount of data that exists for ship-based Antarctic tourism.

Others, wealthy enough to own a private yacht, may travel to the continent on a whim without any experience in navigating Antarctic waters. Wellmeier refers to these private yachts that ignore Antarctic and environmental guidelines as "small vagabonds" that may endanger the environment or the lives of others through their ignorance of the area. The waters surrounding Antarctica are extremely hazardous to anyone unfamiliar with the frequent high winds and rough seas.

Environmental measures in place
The picture isn't all bleak. Of the tourists who traveled to Antarctica last season, many went on small cruise ships carrying fewer than 500 passengers. Ships carrying more than 500 passengers are not permitted by the treaty to disembark anywhere in Antarctica, although some do cruise along the coast and are counted in the total tourism numbers. Those that do land follow environmental guidelines specific to each landing spot, taking care not to disturb penguin breeding grounds, avoiding cliffs, and keeping on paths so as not to trample moss and lichens.

And some environmental concerns about oil spills are also being addressed. The International Maritime Organization has enacted a ban on any heavy-fuel oil in the Southern Ocean, preventing very large cruise ships that use the oil from entering Antarctic waters.

It may even turn out that Antarctic tourism is the lesser of two environmental evils. Ron Naveen, the founder of Oceanites—a group that closely monitors the effect of tourism on wildlife at popular Antarctic landing spots—says he has found that climate change is having a far more dramatic effect on penguin populations than anything tourists could do. A former tourism expedition leader, Naveen became concerned about the effects that thousands of tourists could have on the Antarctic landscape, and began the painstaking process of gathering scientific data on the subject. He eventually created a Compendium of Antarctic Visitor Sites, documenting the effects of tourism on land-dwelling flora and fauna, but found little to suggest that tourists were the central cause of population problems. "It doesn't make sense to us as scientists that a wayward tourist is the cause of declines in species," he says, but notes that precautions can still be taken by visitors to avoid disrupting habitats.

So far, he has found tourism operators very willing to adapt to and enforce the guidelines specific to each landing site that he drew up to help preserve the environment there. Naveen explained that many Antarctic tourism companies feel an imperative to be environmentally conscious: "They would be the first to make necessary changes, because they rely on a pristine environment. If the penguins aren't there, then they're out of business."

This article is provided by Sciencceline, a project of New York University's Science, Health and Environmental Reporting Program.
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