Antarctica concerns grow as tourism numbers rise

March 16 2013, by Rod Mcguirk

In this Dec. 1, 2009 photo provided by Aurora Expeditions, an inflatable boat carries tourists past an iceberg along the Antarctic Peninsula. In a remote, frozen, almost pristine land where the only human residents are involved in research, tourism comes with risks, for both the continent and the tourists. (AP Photo/Aurora Expeditions, Andrew Halsall)

Across most of Earth, a tourist attraction that sees 35,000 visitors a year can safely be labeled sleepy. But when it's Antarctica, every footstep matters.

Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer.

In a remote, frozen, almost pristine land where the only human residents are involved in research, that tourism comes with risks, for both the continent and the tourists. Boats pollute water and air, and create the potential for more devastating environmental damage. When something goes wrong, help can be an exceptionally long way off.

The downturn triggered by the economic meltdown created an opportunity for the 50 countries that share responsibility through the Antarctic Treaty to set rules to manage tourism, but little has been done. An international committee on Antarctica has produced just two mandatory rules since it was formed, and neither of those is yet in force.

"I think there's been a foot off the pedal in recent years," said Alan Hemmings, an environmental consultant on polar regions. "If it takes five years, 10 years to bring even what you agree into force, it's very difficult to micromanage these sorts of developments."

Antarctic tourism has grown from fewer than 2,000 visitors a year in the 1980s to more than 46,000 in 2007-08. Then the numbers plummeted, bottoming out at fewer than 27,000 in 2011-12.

The Rhode Island-based International Association of Antarctic Tour Operators doesn't have its final 2012-13 figures yet but estimates close to 35,000 visitors this season, which runs from November through March. The industry group expects slightly more tourists next summer.

It's not just the numbers of tourists but the activities that are changing,

said Hemmings, who has been part of a delegation representing New Zealand in some Antarctic Treaty discussions.

"What used to be Antarctic tourism in the late '80s through the '90s was generally people of middle age or older going on cruises and small ships where they went ashore at a few locations and they looked at wildlife, historic sites and maybe visited one current station," he said. "But there's an increasing diversification of the activities now so it's much more action orientated. Now people want to go paragliding, waterskiing, diving or a variety of other things."

Visitors can also skydive over the frigid landscape, and London-based Henry Cookson Adventures took two and three-man submarines to Antarctica in the latest summer. Hemmings said he was once asked to advise on a Germany company's plan to fly gliders over the colossal Transantarctic Mountains to the South Pole, but that project was never carried out.

On Ross Island, a stark black-and-white outcrop of ice on porous, volcanic rock, the active volcano Mt. Erebus stands as a warning of the dangers of tourism in this remote and hostile environment. In 1979, an Air New Zealand airliner on a sightseeing tour from Auckland slammed into the mountain in whiteout conditions, killing all 257 people aboard. After that disaster, sightseeing flights over Antarctica did not resume until the mid-1990s.

Some of the earliest attempts at skydiving in Antarctica also ended in tragedy. Two Americans and an Austrian died in the same jump in 1997 near the U.S. Amundsen-Scott South Pole Station at the geographic South Pole.

In this Sunday, Jan. 20, 2013 photo, U.S. research personnel from McMurdo Station scale nearby Castle Rock for recreation on Ross Island, Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

Hypoxia—a lack of oxygen—is a suspected reason why the skydivers failed to deploy their parachutes in time. Antarctica is not only the world's coldest, driest and windiest continent, but also the highest. The South Pole is on an icy plateau 2,835 meters (9,301 feet) above sea level and the air is relatively thin.

The last fatalities at sea near the continent were in February 2011, when a Norwegian-flagged, steel-hulled yacht with three crew vanished during wild weather in the Ross Sea.

It's not only tourists who get into trouble. Searchers will wait until at

least October to recover the bodies of three Canadians involved in scientific research who died in a plane crash in January near a summit in the Queen Alexandra range. A fire aboard a Japanese whaling ship in the Ross Sea killed a crew member in 2007. And anti-whaling activists lost a boat that collided with a whaler in 2010. No one was injured.

Hemmings said tourist ships have been involved in several mishaps in Antarctica in the past five years.

"Misadventure can befall anybody," he said, but he added that the number of tourist ships coming to Antarctica's busiest areas was a concern.

In this Jan. 20, 2013 photo, tourists scale Crater Hill toward Castle Rock on Ross Island, Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees

watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

While Antarctica is as big as the United States and Mexico combined, tourists and scientists for the most part keep to areas that aren't permanently frozen and where wildlife can be found. Those account for less than 2 percent of the continent.

It's a land of many hazards, not all of them obvious. The dry air makes static electricity a constant threat to electronics and a fire risk when refueling vehicles. Residents quickly get into the habit of touching metal fixtures as they pass, and metal discharge plates are set beside all telephones and computer keyboards.

Most tourists arrive on the Antarctic Peninsula, which is easily accessible from Argentina and Chile. The next most popular destination is the Ross Sea on the opposite side of the continent, a 10-day sail from New Zealand or Australia.

Both landscapes are intensely bright and profoundly silent during the 17 weeks between sunrise and sunset in the summer. The peninsula is a milder environment and has a wider variety of fauna and flora.

In this Sunday, Jan. 20, 2013 photo, cross-country skiers pass a survival shelter on Hut Point Peninsula of Ross Island, Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

The Ross Sea, where the Royal Society Range soars 4,200 meters (13,200 feet) above the ice-clogged waters of McMurdo Sound, demonstrates the colossal grandeur for which Antarctica is renowned. It was also the starting point of British expeditions to the South Pole during the so-called heroic era of Antarctic exploration from 1895 to 1915. The early explorers' wooden huts still dot the coast.

The Ross Ice Shelf, the world's largest mass of floating ice covering an area almost as big as Spain, rises as steep, gleaming cliffs 60 meters (200 feet) from the sea.

Two cruise ships visited the sea's Ross Island, connected to the continent by ice, last summer. Summer temperatures average minus 6 degrees Celsius (21 Fahrenheit) but often seem colder due to wind chill.

In this Sunday, Jan. 20, 2013 photo, a downhill ski run photographed from an over-snow vehicle near New Zealand's Scott Base on Ross Island in Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in 'adventure tourism' like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

Passengers visited the largest settlement in Antarctica, the sprawling U.S. McMurdo Station, which can accommodate more than 1,200 people, as well as New Zealand's neighboring Scott Base, which sleeps fewer than 90. Many also visited a drafty hut built by doomed British explorer Capt. Robert Falcon Scott in 1902 as an expedition base a few hundred meters

(yards) from McMurdo Station.

The two bases, separated by a 3-kilometer (2-mile) ice road, don't facilitate tourism, but tourists are generally welcomed. Both have well-stocked gift shops.

In this Sunday, Jan. 20, 2013 photo, a sightseeing helicopter lands near New Zealand's Scott Base on Ross Island, Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in 'adventure tourism' like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

Antarctic New Zealand's environment manager Neil Gilbert said more robust monitoring is needed to track impacts of tourism.

"The Antarctic Peninsula ... is one of if not the most rapidly warming part of the globe," Gilbert said. "We really don't know what additional impact that those tourism numbers ... are having on what is already a very significantly changing environment."

In this Sunday, Jan. 20, 2013 photo, sightseers board an over-snow vehicle on Hut Point Peninsula of Ross Island in Antarctica. Tourism in Antarctica is rebounding five years after the financial crisis stifled what had been a burgeoning industry. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

There are fears that habitat will be trampled, that tourists will introduce exotic species or microbes or will transfer native flora and fauna to parts

of the continent where they never before existed.

A major fear is that a large cruise ship carrying thousands of passengers will run into trouble in these ice-clogged, storm-prone and poorly charted waters, creating an environmentally disastrous oil spill and a humanitarian crisis for the sparsely resourced Antarctic research stations and distant nations to respond to.

To reduce the risk of spills, the United Nations' shipping agency, the International Maritime Organization, barred the use of heavy fuel oil below 60 degrees latitude south in 2011.

This Jan. 19, 2013 photo shows New Zealand's Scott Base on Ross Island, Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

That was a blow to operators of large cruise ships. Steve Wellmeier, administrative director of the tour operators group, said the ban initially slashed cruise passenger numbers by two-thirds.

But it was only a temporary obstacle to industry growth; large ocean liners can comply with the ban by using lighter distillate fuels in Antarctic waters. About 9,900 passengers are believed to have visited Antarctica on large cruise ships is the season now ending, double the total from 2011-12.

The fuel-oil ban is a rare thing for Antarctic tourism: a binding rule.

In this Sunday, Jan. 20, 2013 photo, a Hagglunds over-snow vehicle is photographed from a similar vehicle traveling in convoy on a sightseeing journey

along Hut Point Peninsula of Ross Island, Antarctica. Tourism is rebounding here five years after the financial crisis stifled what had been a burgeoning industry. And it's not just retirees watching penguins from the deck of a ship. Visitors are taking tours inland and even engaging in "adventure tourism" like skydiving and scuba diving under the ever-sunlit skies of a Southern Hemisphere summer. (AP Photo/Rod McGuirk)

The 28 countries that comprise the Antarctic Treaty Consultative Committee have made 27 non-binding recommendations on tourism since 1966, but just two mandatory rules—and neither of those are yet in force.

A 2004 agreement requiring tourism operators to be insured to cover possible rescue operations or medical evacuations has been ratified by only 11 of the 28 countries. A 2009 agreement barring ships carrying more than 500 passengers from landing tourists—a measure to protect trampled sites—has the legal backing of just two countries, Japan and Uruguay.

The United States, by far the biggest source of tourists and tourism operators, has not signed either measure.

The International Maritime Organization intends to enforce a Polar Code, detailing safety standards for ships entering both the Arctic and Antarctic regions. It was supposed to be force by 2013, but the IMO now says it won't be adopted before 2014, and after that it will take another 18 months for the code to be implemented.

In this Dec. 3, 2009 photo provided by Aurora Expeditions, tourists paddle their kayak along the Antarctic Peninsula. In a remote, frozen, almost pristine land where the only human residents are involved in research, tourism comes with risks, for both the continent and the tourists. (AP Photo/Aurora Expeditions, Andrew Halsall) EDITORIAL USE ONLY

Hemmings said the current lack of standards is a problem because increasing numbers of cruise ships are negotiating the poorly charted and storm-prone seas without ice-strengthened hulls as Antarctic legs are added to South American, South Pacific and around-the-world cruises.

Those ships "are not necessarily ice-strengthened, or if they are ice-strengthened, are not ice-strengthened to a high standard because at other times of the year they're doing something different," Hemmings said.

Wellmeier, the industry group official, said the impending rules could

knock some currently operating vessels out of Antarctica. In any case, he said he doesn't think tourism there will return to the explosive growth rates of the years before the financial crisis, simply because the ships needed for such expansion are not available.

Tourists far outnumber the scientists and support staff at national scientific research stations in Antarctica during the peak summer season, though the researchers make more of an impact because they stay longer. The summer population at the 39 stations across the continent peaked at about 4,400 in the 2011-12 year.

Wellmeier believes tourists should not be considered separately from the question of overall human impact on the Antarctic environment. He said too often it is research-station personnel who flout the rules.

"We hear horror stories every season," he said. "A group will come ashore from a national program and they're on their day off ... and they're breaking the rules, right and left, smoking and getting too close to the animals."

In this Dec. 2, 2009 photo provided by Aurora Expeditions, an inflatable boat carries tourists past an iceberg along the Antarctic Peninsula. In a remote, frozen, almost pristine land where the only human residents are involved in research, tourism comes with risks, for both the continent and the tourists. (AP Photo/Aurora Expeditions, Andrew Halsall) EDITORIAL USE ONLY

The United States has been criticized on environmental grounds for building a 1,600-kilometer (995-mile) ice road from McMurdo Station to the South Pole on which tractors drag fuel and supplies on sleds. The road provides a more reliable alternative to frequently grounded air services.

Australia-based adventurer Tim Jarvis sees Antarctic tourists not as a problem, but as part of the solution for a frozen continent where the ice is rapidly retreating. If more tourists see its wonders and the impacts of climate change, particularly on the Antarctic Peninsula, Jarvis said, the world will become more inclined to protect the continent.

"It's a pity we live in a world that's a little bit overregulated in many respects," he said of the prospect of greater controls on tourism.

Jarvis led a party of six in January and February on a 19-day reenactment of British explorer Ernest Shackleton's desperate sea and land journey to a South Georgia Island whaling station in the southern Atlantic Ocean in 1916. After his ship was crushed by sea ice, Shackleton left 22 of his crew at on a remote island, then set sail in a lifeboat on an 800-nautical-mile (1,480-kilometer) voyage to get help.

Jarvis's party encountered 8-meter (26-foot) waves, then repeatedly fell through crevasses as they trekked across the snow-covered mountains of South Georgia. Jarvis suffered frostbite to one of his feet but completed the journey. Three members of his party couldn't complete the climb because of trench foot, a condition caused by prolonged exposure to cold and wet conditions.

While the journey seems death-defying, it was the product of tremendous planning. Jarvis and his party spent more than a year applying for five permits from various treaty countries accompanied by detailed risk assessments and environmental impact statements. They paid for their own backup boat to rescue them in case anything went wrong.

"My broader message to people is that we all have the potential to do far more in our lives than we feel we're capable of doing and we should go and explore that ... but do it responsibly," Jarvis said.