

## **Polar Bears On Thin Ice**

Or is it Photoshop?

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Not so long ago polar bears were a symbol of cold, but these days they are a symbol of warmth. It has become difficult to open a newspaper or web page without seeing photographs of the beautiful yellowy-white animals leaping, or lying on sea ice in the Arctic, the newly helpless emblem of climate change. The traditional threats to the polar bear - hunting, toxic waste, offshore drilling - have been overshadowed by a new one: the ice around them is melting, and we are to blame.

This new threat is not new, of course - about as new as deforestation. But two things have put the polar bears on top of the vanishing ice, where they pose unwittingly as the latest poster animals in a distinguished and photogenic parade of endangered pandas, gorillas, dolphins and whales. At the end of December, the US Secretary of the Interior revealed the US Fish and Wildlife Service was considering adding the polar bear to its list of threatened species. A three-month consultation process began in January, and the world's Arctic specialists have been making appointments to deliver their expertise. This is a more significant addition to the at-risk list than a rare gazelle or panther: it is an admission, after years of denial, of the existence of global warming. The Bush administration could no longer disavow the effects of climate change if one of its departments had acknowledged such visible and dramatic effects. The polar bear had done what environmentalists could not, and opened a window on a global crisis. Three lawsuits against the White House - from Greenpeace, the Center for Biological Diversity and the Natural Resources Defense Council - were settled at a stroke.

Then, at the beginning of February, the Intergovernmental Panel on Climate Change (IPCC) delivered its damning verdict on rising temperatures and disappearing sea ice, and polar bears had even more reason to feel loved. Six hundred scientists attempted to dismiss all lingering cynicism about global warming, and to pin the blame on its human perpetrators. The reality is now stark and quantifiable, they stated, and in some areas the devastation is irreversible: we are already too late, for example, to avert the effects of the recent rises in sea levels. This news is particularly bad for polar bears, for the earlier melting of spring ice and the later formation of autumn ice has an immediate impact on their ability to feed. In some areas there is evidence that sea ice breaks up three weeks earlier than it did 30 years ago.

Which seems to be good news for polar bear photographers. There is no such thing as an ugly polar bear, and even the less handsome ones appear to have learnt to conceal their claws as they leap the ice floes. Like panting labradors, they always appear to be smiling (no such fillip for the equally threatened but unglamorous walrus).

One photograph in particular has captured the imagination. In a neat piece of marketing, the Canadian Ice Service made available a stunning image to coincide with the IPCC report. Two bears, probably a mother and her cub, are pictured on a spectacular ice block off northern Alaska that might have been modelled by Henry Moore. They appear to be howling against injustice. The drama is clear: this is truly the tip of an iceberg, the bears are desperately stranded as the water swells around them. The first thought among viewers is surely one of pity and concern, but this is to misjudge the situation: polar bears are reasonable swimmers, and certainly climbed upon such sculptures centuries before we climbed into our 4x4s.

'Initially I thought the picture was a Photoshop fake,' Dr Ian Stirling, senior research scientist with the Canadian Wildlife Service, emails from his home in Edmonton. 'But I have since checked and it is

authentic. There is no doubt the photo is used because of its dramatic effect, and it is true it does not represent the kind of sea ice bears normally live on and depend upon for hunting seals.'

The photograph was taken in 2004. Naysaying bloggers have used the fact the picture has been romanticised to discredit the claim of bears at risk, and in some cases the very existence of global warming. Several sites link to the original text that accompanied the photograph when it was first used three years ago, in an online journal of the Beaufort Gyre Exploration Project, in which the ice block is described as 'extraordinary'. The bears were seen during a late-summer arctic drilling mission that found the ice much thicker than expected.

Elsewhere, images of the polar bear are used to further other ends. The World Wildlife Fund features four of them, sketched in Biro, in its latest magazine campaign to 'Change the world with a pen', an attempt to encourage corporate responsibility: 'Climate change is no longer a debate,' the advertisement says, 'it's a business challenge.'

'The fate of the polar bear has been on our minds for several years,' says Stefan Norris, head of conservation for the WWF International Arctic Programme. 'The polar bear is at the very top of the food chain, and is easy to sell, and is an iconic species - but they are just an indication of what's happening to the entire Arctic ecosystem.'

Easy to sell, but hard to save. Despite their uncertain fate, you wouldn't mind having their PR account. They look sweet, embraceable even. Those who have run from them on land, or witnessed a savage, ripping kill on an ice floe will have a different perspective, but the bears do not yet seem to be aware they are a business challenge, or even that another TV crew is at this very moment packing for a trip to Churchill, Manitoba, for a closer glimpse of the imperilled bears, and an examination of their myths. No, polar bears are not left-handed. They do not kill seals with blocks of ice, although they do occasionally pound the ice in

frustration when a seal gets away. And they do not cover their black noses for camouflage when stalking their next meal.

The polar bear has traditionally been an adaptable creature. But, though it may receive a little sustenance from birds' eggs and from scavenging in rubbish bins, it cannot survive without large supplies of seal meat and blubber, and for its kill it must be on or near sea ice. And the problem is broader still. Polar bears may be feeding on fewer seals not just because of melting sea ice; the seals may be declining because they aren't finding enough fish, and the fish aren't finding sufficient krill, and the krill aren't finding the algae.

'Every time we look at this, the urgency becomes greater,' Norris says. 'The scientific thinking in 2004 was that there was a significant chance that at the end of the 21st century there would be no sea ice at all at the North Pole during the summer. But at the end of 2006 the US Geological Service came out with a report that this is likely to happen by the middle of this century, in the lifetime of our kids.'

How did we get here? There is no agreed date which we can pinpoint as the beginning of our concern for *Ursus maritimus*. A more civilised approach to their fate began, perhaps, in 1985, when the polar bears disappeared from London Zoo at the temporary closure of the Mappin Terraces. Animal husbandry matured: Regents Park was no longer considered the ideal habitat for the King of the Arctic. The last polar bear in Britain is a female called Mercedes at Edinburgh Zoo, who looks distinctly forlorn on her website photo.

But we could just as reasonably choose 1993, the year Coca-Cola adopted the animal to spearhead its new global marketing campaign. The Cola Bear reinforced the notion that Coke was best served ice-cold, and it was a drink that spread the love: the bears, who made deep and reassuring guttural noises and never had seal blood on their fur, were represented in family groups playing with penguins and admiring the Aurora Borealis. There was no cuter or more deceptively cuddly anthropomorphism on the tundra - the

little ones even wore red scarves - and merchandise followed; keyrings, soft toys, pencil toppers, now quite big on eBay. The only downside for the polar bears was they didn't own their image rights.

That was also the year when Dr Ian Stirling and Dr Andrew Derocher, both of the International Union for Conservation of Nature's Polar Bear Specialist Group (IUCN PBSG), wrote their first scientific paper on what they perceived as a deterioration in the condition of polar bears in western Hudson Bay, Canada; they also noted unfamiliar patterns in the break-up of ice. Another paper appeared six years later with stronger evidence, and since then similar patterns have been reported in five of the 19 polar bear sub-populations in the Arctic. More young cubs are found dead each year; adults have lost weight, from an average of 650lb in 1980 to 507lb in 2004; there have been instances of cannibalism; and in western Hudson Bay the polar bear population decreased from 1,200 in the mid-Nineties to less than 1,000 in 2004.

There are thought to be between 20,000 and 25,000 polar bears in the world, and all but one member of the PBSG believe global warming poses a critical threat to their long-term survival. The exception, quoted by contrarian writers, is Dr Mitchell Taylor from the Government of Nunavut, who remains sceptical about the climate modelling projections and their impact. 'I'm not sure I understand his logic,' Stirling says. 'However, at the last meeting of the IUCN PBSG in Seattle in June 2005 the group [including Dr Taylor] unanimously agreed to classify the polar bear as vulnerable.'

But as numbers decline, polar tourism flourishes. Companies promise a trip like no other, with buggy tours lasting two days and one evening, 'long enough,' one brochure states, 'for nature enthusiasts to keep their excitement, but not too long to the point of monotony.' The same brochure also advertises the 'Ultimate Churchill', which offers an optional helicopter journey to the female bears' denning area 'where we can have the chance to crawl

inside an unoccupied polar bear den'.

The path to preservation has been a slippery one. There have been laws prohibiting excessive hunting since the Seventies, and concern about oil drilling began a decade later, but the case for climate change demanded sterner proof. In 2001, the WWF issued a report called *Polar Bears at Risk*, but it was speculative.

According to Stefan Norris, 'We had a little trouble getting the scientists to say, "Yes, there is a one-to-one link here" because there hadn't been long enough statistical studies to link everything together. But we're now seeing direct scientific linkages in Canada, Alaska, Norway and Russia.'

Norris says the WWF has come under a lot of pressure to predict when polar bears will become extinct, but no one is prepared to be so precise, or so doom-laden. He is increasingly optimistic that an immediate cut in greenhouse gas emissions 'may yet turn the ship around'.

Others are less certain. Peter Wadhams, professor of ocean physics at Cambridge, has made frequent observations of Arctic sea ice from submarines, recording more than a 40 per cent loss in ice thickness in the past 25 years. He is not surprised at predictions that the Arctic summer ice will disappear much earlier than previously envisaged - 'perhaps before 2040'. Wadhams says he is about to leave Britain due to inadequate funding for his research, despite its influence on government reports. He is one of those scientists who has no difficulty making a direct link between climate change and the fate of the polar bear. 'If the pack ice has retreated far from the coast, the bear will start swimming, thinking there is only a small shore lead, as has usually happened in the past. If the distance to the ice is too great, he may tire and drown. This has been observed in bears denning in north Alaska then trying to get out on to the Beaufort Sea pack ice.'

After years of hesitancy, there is now a sense of urgency. Tomorrow night in Washington the US Fish and Wildlife Service will hold the second of its public hearings on whether the polar

bear should be officially regarded as a threatened species. The third and final meeting takes place in Alaska two days later. But it may be too late to be squabbling over semantics. To some extent the fate of the polar bear is already fixed: unless it is able to adapt to spending far greater periods of the year on land, it may not recover from our devastating impact on its Arctic environment.

But not all polar bears are in the Arctic. This month the Horniman Museum in London has a timely display of 32 photographs of polar bears, and they make sober viewing. They are all stuffed, and their habitat is wooden packing crates and storage units - a collection of every taxidermists' polar bear in Britain. A chilly vision of the past, and maybe the future too.