

The GWPf letter to all UK head teachers will include the following verifiable facts, which Attenborough and/or his advisors would have found had they looked:

* Global polar bear numbers have not declined since 2007 even though summer sea ice dropped precipitously at that time to a level about 40% less than 1979, indicating this species is not as sensitive to changes in sea ice habitat as experts had assumed.[1]

* While the IUCN Red List classified the polar bear as 'vulnerable' to extinction, this was based solely on computer predictions of what might happen to polar bear numbers in the future, not on current population size: moreover, the 2015 assessment suggested there was only about a 70% chance that numbers would decline by 30% or more by 2050 but no chance of extinction if summer sea ice continued to decline steadily until mid-century.[2]

* Most of the world's polar bears live in Canada, where the species is not considered threatened (or vulnerable) but is listed in the lesser category of 'special concern' which it has had since 1991.[3]

* Significant declines in polar bear body condition, litter size, and cub survival occurred in Western Hudson Bay for no apparent reason well before sea ice conditions changed on Hudson Bay – and then dropped again when summer ice cover declined by 3 weeks: polar bear specialists emphasize the second drop and keep silent on the first, even though it is well documented in the peer-viewed scientific literature.[4]

* Only one out of six Arctic seal species are included on the IUCN Red List of Threatened and Endangered Species because there is no evidence they have been harmed by recent declines in sea ice.[5]

* The Pacific walrus is similarly not included on the IUCN Red List of Threatened and Endangered Species because there is no evidence they have been harmed by recent declines in sea ice.[6]

* In 2017, the US Fish and Wildlife Service refused to list the Pacific walrus as 'threatened' on the Endangered Species List because their research revealed walrus populations were high, had not been harmed by recent sea ice loss, and had shown flexibility in adapting to sea ice change.[7]

* Falling off cliffs and hauling up on Arctic beaches in enormous numbers in summer or fall are natural phenomena in Pacific walrus that are not exclusively associated with recent sea ice loss.[8]

[1] IUCN Red List Assessment in 2015 put the global population at 22,000-31,000 <https://www.iucnredlist.org/species/22823/14871490#assessment-information> compared to 20,000-25,000 in 2005, see IUCN PBSG Meeting #14, 20-24 June 2005 <http://pbsg.npolar.no/en/meetings/press-releases/14-Seattle.html>; For

summer sea ice decline

see http://nsidc.org/arcticseaicenews/files/1999/10/Sep_monthly_extents13yr.png

[2] IUCN Red List Assessment 2015 Supplemental Information pp.

16, <https://www.iucnredlist.org/species/22823/14871490#assessment-information>;

See also Regehr et al. (2016), Conservation status of polar bears (*Ursus maritimus*) in relation to projected sea-ice declines. *Biology Letters* 12:

20160556, <http://rsbl.royalsocietypublishing.org/content/12/12/20160556>

[3] COSEWIC (2018), Assessment and Status Report of the Polar Bear (*Ursus maritimus*) in Canada 2018. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/polar-bear-2018.html> and https://wildlife-species.canada.ca/species-risk-registry/species/speciesDetails_e.cfm?sid=167

[4] Derocher, A.E. and Stirling, I. (1992), The population dynamics of polar bears in western Hudson Bay. pg. 1150-1159 in D. R. McCullough and R. H. Barrett, eds. *Wildlife 2001: Populations*. Elsevier Sci. Publ., London, UK; Derocher, A.E., and Stirling, I. (1995a), Estimation of polar bear population size and survival in western Hudson Bay. *Journal of Wildlife Management* 59: 215-221; Derocher, A.E. and Stirling, I. (1995b), Temporal variation in reproduction and body mass of polar bears in western Hudson Bay. *Canadian Journal of Zoology* 73: 1657-1665; Derocher, A.E., and Stirling, I. (1996), Aspects of survival in juvenile polar bears. *Canadian Journal of Zoology* 74: 1246-1252; Ramsay, M.A. and Stirling, I. (1988), Reproductive biology and ecology of female polar bears (*Ursus maritimus*). *Journal of Zoology London* 214:601-624; Stirling, I. and Lunn, N.J. (1997), Environmental fluctuations in arctic marine ecosystems as reflected by variability in reproduction of polar bears and ringed seals. *Ecology of Arctic Environments* (eds S. J. Woodin and M. Marquiss), pp 167- 181. Blackwell Science, Oxford.

[5] Harp seal, <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T41671A45231087.en>;

Bearded seal, <http://www.iucnredlist.org/details/full/8010/0>;

Ringed seal, <http://www.iucnredlist.org/details/full/61382318/0>;

Ribbon seal, <https://www.iucnredlist.org/species/41670/45230946>;

Spotted seal, <https://www.iucnredlist.org/species/17023/45229806>;

Hooded seal, the exception, is listed as 'vulnerable' primarily because of an inexplicable decline in the East Greenland ('West Ice')

population <https://www.iucnredlist.org/species/6204/45225150#assessment-information>

[6] Pacific walrus, <http://www.iucnredlist.org/details/full/61963499/0>

[7] US Fish and Wildlife Service (2017). Endangered and threatened wildlife and plants; 12-month findings on petitions to list 25 species as endangered or threatened. *Federal Register* 82: 46618-46645; MacCracken et al. (2017). *Final Species Status Assessment for the Pacific Walrus (*Odobenus rosmarus divergens*)*, May 2017 (Version 1.0). US Fish & Wildlife Service, Anchorage, AK; See also https://www.fws.gov/news/ShowNews.cfm?ref=after-comprehensive-review-service-determines-pacific-walrus-does-not-&_ID=36158

[8] Crockford, S.J. (2014), On the Beach: Walrus Haulouts are Nothing New. *Global Warming Policy Foundation Briefing Paper 11*. <http://www.thegwfpf.org/susan-crockford-on-the-beach-2/> and <https://www.youtube.com/watch?v=cwaAwsS2OOY>;

Fischbach et al. (2016), Pacific walrus coastal haulout database, 1852–2016—Background report: U.S. Geological Survey Open-File Report 2016—

1108. <http://dx.doi.org/10.3133/ofr20161108>; Lowry, L. (1985), "Pacific Walrus – Boom or Bust?" *Alaska Fish & Game Magazine July/August*: 2-5, http://www.adfg.alaska.gov/static/home/library/pdfs/wildlife/research_pdfs/pacific_walrus_boom_bust.pdf; See also this US Fish & Wildlife video from 1994 <https://www.dailymotion.com/video/x2m72ze>