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Do Natural History Documentaries Prompt Public Engagement?

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Abstract

Key words: conservation, documentaries, public engagement

Introduction

We live in the Anthropocene age, a critical time for our species and the planet where the effect humanity has on the natural world cannot be overstated given we are the cause of a global mass extinction event. But we also live in digital age, a time of constant technological change, instant rewards and short attention spans. Conservation practitioners are thus faced with the task of alerting the general public to the plight of the planet and its many endangered species. Documentaries have recently shown their potential to fill this role, with viewing figures at record levels. But we wonder whether this medium gets the message across, or if it is lost along the way. And if so, where does that loss occur so we can improve the quality and reach of the message.

"As a conservationist, I think I would be doing the cause a great disservice if I tacked on to the end of every single programme that I did, a little homily to explain yet again that mankind is wrecking the environment that I have been showing. My job as a natural history film make is to convey the reality of the environment so that people will recognise its value, its interest, its intrinsic merit and feel some responsibility for it. After that has been done, then the various pressure groups can get at them through their own channels and ask them to send a donation to, let us say, the World Wildlife Fund." [1].

"There are two planet earths. One of them is the complex, morally challenging world in which we live, threatened by ecological collapse. The other is the one we see on the wildlife programmes." George Monbiot

”The loss of wilderness is a truth so sad, so overwhelming that, to reflect reality, it would need to be the subject of every wildlife film. That, of course, would be neither entertaining nor ultimately dramatic. So it seems that as filmmakers we are doomed either to fail our audience or fail our cause.” Stephen Mills (1997)

Materials and Methods

First we looked at the potential of documentaries to impact / generate public awareness a.Sequence time (or no words) and number of original tweets and wiki hits. Then we look at whether docs are actually reflecting what occurs in the natural world, or as recent criticism suggests, represents a fictitious picture of the state of the plane. a. IUCN vertebrate status -¿ reflected in script? -¿ reflected in twitter volume or sentiment?-¿ reflected in wiki hits? b.Total time / words dedicated to cons messages (including overview sequences) c.Figure with map of distribution of stories, taxa breakdown and IUCN status breakdown. Finally, we look at whether this awareness actually results in engagement and has an impact on conservation issues. Case studies of specific sequences and web hits/donations to relevant charities.

We searched the scripts from the six episodes of Planet Earth 2 for sentences that could be construed as having a conservation theme. We did this indepedently to ensure intercoder reliability. The few discrepanices that resulted were discussed so that we could set out a final set of sentences. See supplementary for script sections.

We used the R package *pageviews* to find the daily number of hits the wikipedia article for each species featured on Planet Earth 2 received. We searched for both the

generic name of the animal and the species-specific name e.g. Sloth and Pygmy three-toed sloth (See table X for full list of search terms). Our prediction was that the articles for the species featured on the show would see a spike around the air dates relative to the rest of the year. We were able to distinguish the page hits according to whether they came from mobile phone or a desktop search.

wiki conservation message (binary) + taxa level (categorical) + sequence time + diaries presence (binary)? + relative popularity from wiki + twitter sentiment?

Combine data from sequence time with time during diaries

Measure each species' article during 2015 and use as a baseline of popularity to see the effect of the series in 2016.

Results

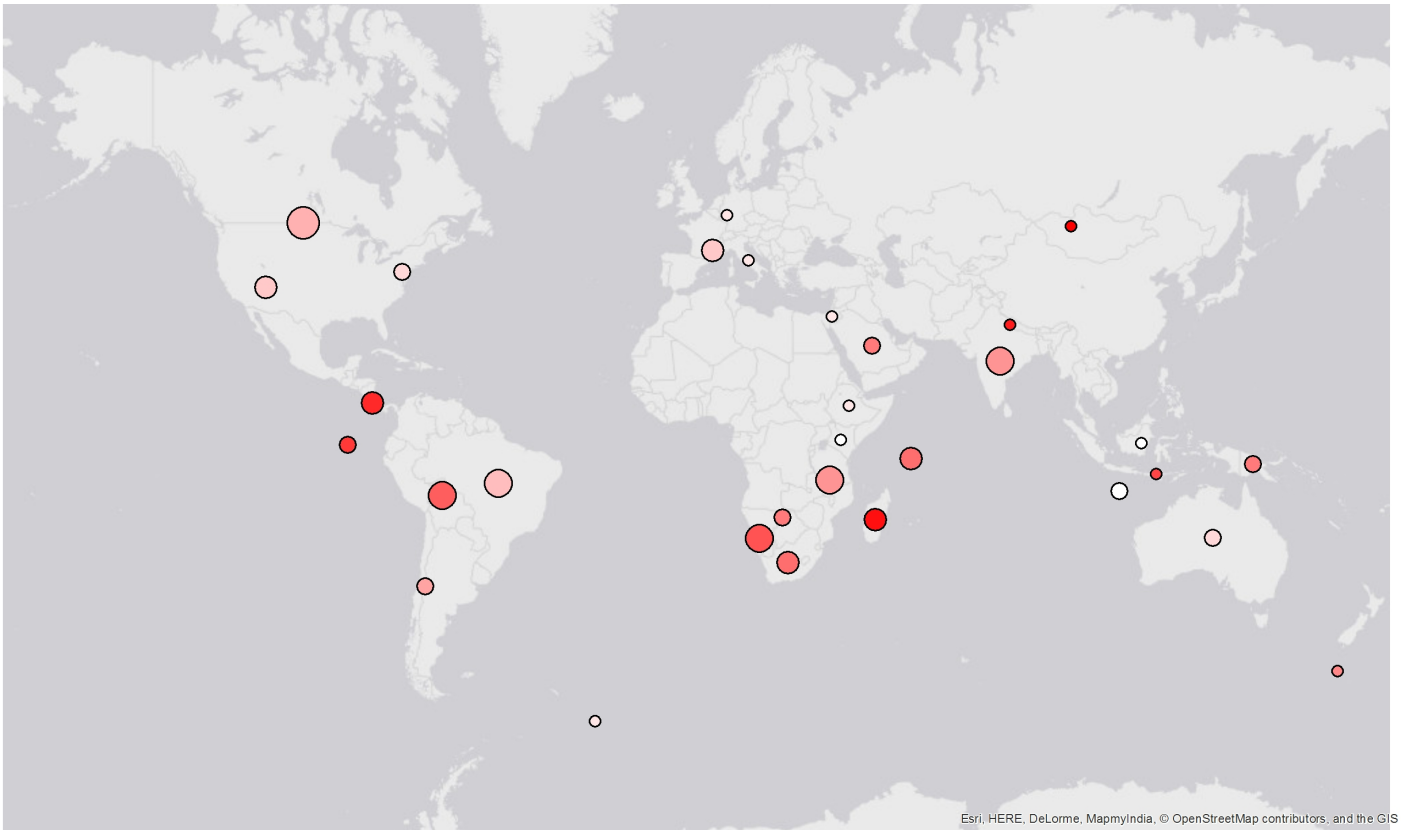

Figure 1: Average IUCN status of species featured on Planet Earth 2

Table 1: Species featured on Planet Earth 2 with associated search terms and IUCN status

Search Terms	IUCN Status
Sloth, Pygmy three toed sloth	CR
Komodo dragon	VU
Lemur	-
Sifaka, Verraux's Sifaka	EN
Iguana, Marine Iguana	VU

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Table 1 – continued from previous page

Search terms	IUCN Status
Snake, Galapagos racer	NA
Seabird	-
Albatross, Buller's albatross	NT
Tern, Fairy tern	VU
Fody, Seychelles fody	NT
Noddy (tern)	LC
Crab, Christmas Island red crab	NA
Ant, Yellow crazy ant	NA
Penguin, Chinstrap penguin	LC
Ibex, Nubian ibex	VU
Fox, Red fox	LC
Eagle, Golden eagle	LC
Bear, Grizzly bear	LC
Bobcat	LC
Groundsel, Cabbage groundsel	LC
Viscacha, Mountain viscacha	LC
Flamingo, Chilean Flamingo	NT
Leopard, Snow leopard	VU,EN

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Table 1 – continued from previous page

Search terms	IUCN Status
Monkey, Spider Monkey, Geoffroy's spider monkey	EN
Lizard, Draco lizard	NA
Hummingbird, Sword-billed hummingbird	LC
Dolphin, River dolphin	DD
Jaguar	NT
Frog, Glass frog, Fleischmann's Glass frog	LC
Beetle, Click beetle	NA
Worm, Railroad worm	NA
Bird-of-paradise, Red bird-of-paradise	NT
Wilson's bird-of-paradise	NT
Indri	CR
Lion	VU
Oryx, East African oryx	NT
Giraffe	VU
Hawk, Harris's hawk	LC
Squirrel, Ground squirrel	ID?
Butcherbird, Shrike, Loggerhead shrike	LC
Locust	ID?

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Table 1 – continued from previous page

Search terms	IUCN Status
Zebra	NT
Elephant, African elephant	VU
Sandgrouse	LC
Mustang	NA
Lizard, Shovel snouted lizard	NA
Mole, Golden mole	ID?
Bat, Desert long-eared bat	LC
Beetle, Darkling beetle	NA
Antelope, Saiga antelope	CR
Buffalo, African buffalo	LC
Mouse, Harvest mouse, Micromys	LC
Owl, Barn owl	LC
Bee-eater, Southern carmine bee-eater	LC
Bustard, Kori bustard	NT
Ostrich	LC
Serval	LC
Rat, Southern African vlei rat	LC
Wildebeest, Blue Wildebeest	LC

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Table 1 – continued from previous page

Search terms	IUCN Status
Widow bird, Jackson's widowbird	NT
Grasscutter ant	ID?
Termite, Compass termites	ID?
Anteater, Giant anteater	VU
Bison	NT
Caribou	VU
Wolf, Grey wolf	LC
Langur, Gray Langur	LC
Falcon, Peregrine Falcon	LC
Pigeon	LC
Starling, Common starling	LC
Bowerbird, Great bowerbird	LC
Racoon	LC
Macaque, Rhesus macaque	LC
Hyena, Spotted hyena	LC
Catfish, Wels catfish	LC
Turtle, Hawksbill turtle	CR
Otter, Smooth-coated otter	VU

Discussion

Ethics statement

N/A

Data accessibility statement

All data and analysis code is available on GitHub (`https://github.com/kanead`).

Authors' Contributions

All authors approved the final version of the manuscript.

Competing Interests

We have no competing interests.

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References

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