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Ten years of coverage of trophy hunting in UK newspapers

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Hunting is an increasingly contentious topic. Trophy hunting, whereby people hunt individual animals with desirable characteristics in order to keep body parts (e.g. horns, heads, hides, antlers) as mementos, is especially contested. Political pressure, often in the form of trophy import bans, is being applied in multiple nations, and campaigns to ban trophy hunting, or trophy imports, attract considerable media attention. However, trophy hunting often has conservation value, acting to protect habitat and provide income for local communities. Assuming that media coverage can influence public and political opinion, negative or simplistic media coverage of trophy hunting has the potential to cause adverse outcomes for conservation and local communities. Here, we analyse coverage of trophy hunting from July 2010 - June 2020 (five years before and five years after the death of Cecil the Lion) in the most popular UK media outlets (624 articles in total), assessing the overall sentiment of each article, and the species and countries covered. Ninety percent of all coverage occurred after the death of Cecil the lion, marking this event as a watershed moment in UK mainstream media depiction of trophy hunting. The overall sentiment of articles was largely against trophy hunting (63.1%), and this was more pronounced in tabloids (84.2%) than broadsheets (42.2%). Pro-trophy hunting articles were very uncommon overall (3.5%). Articles that described the complexity of trophy hunting decreased following Cecil and were most common in pre-Cecil broadsheets (35.7%, dropping to 30.6%) and rarest in post-Cecil tabloids (3.1%). Articles focussed mainly on charismatic but rarely hunted species including lion, elephant and rhino, with commonly hunted species (such as impala or Cape buffalo) only rarely being mentioned. When countries were mentioned, southern African nations predominated, with four nations (Zimbabwe, South Africa, Namibia and Botswana) being named in 68% of qualifying articles. We conclude that simplistic media depiction of trophy hunting has the potential to cause negative outcomes for conservation through its impact on public perception and political opinion.

KEYWORDS

conservation, sustainable use, policy, charismatic species, Southern Africa, sport hunting

Introduction

Hunting, the deliberate killing of animals by people, has long been part of human cultures, providing food and other resources, as well as being a component of ceremonial and symbolic practices (Darimont et al., 2017; Alves et al., 2018). Around the world, people currently hunt for many purposes, including subsistence, wildlife population management, cultural reproduction, and recreation (Di Minin et al., 2021). Despite its long history and widespread occurrence hunting can be controversial. Unsustainable hunting can imperil populations and species, and over-exploitation has caused multiple extinctions, including the dodo (*Raphus cucullatus*) (Roberts and Solow, 2003), passenger pigeon (*Ectopistes migratorius*) (Bucher, 1992) and blue buck (*Hippotragus leucophaeus*) (Broom, 1949). Over and above conservation implications, hunting can be controversial because it involves taking animals' lives. The expansion and growing acceptance of animal rights (e.g., Peters, 2020) together with an increasing awareness and consideration of animal sentience (Browning and Birch, 2022) have increased the criticism levelled at hunting, especially hunting within societies where it is no longer required for food (e.g., Horowitz, 2019).

One particularly contentious type of hunting is trophy hunting (hereafter, TH), when hunters hunt individual animals with desirable characteristics in order to keep body parts (e.g. horns, heads, hides, antlers) as mementos, or "trophies" (e.g. Lindsey et al., 2007). Legal, regulated trophy hunting is a component of wildlife management in numerous countries globally and is, by definition, distinct from illegal and unregulated poaching. Around the world, many species are trophy hunted including geese (*Anser* spp.) in Scandinavia (HSI, 2016), red and roe deer (*Cervus elaphus* and *Capreolus capreolus*) in the UK (Kirkland et al., 2021), white-tailed deer (*Odocoileus virginianus*) and elk (*Cervus canadensis*) in the USA, polar bears (*Ursus maritimus*) in Canada, tahr (*Hemitragus jemlahicus*) in New Zealand, markhor (*Capra falconeri*) in Central Asia, and a wide variety of mammal species in sub-Saharan Africa including springbok (*Antidorcas marsupialis*), kudu (*Tragelaphus strepsiceros*.) and impala (*Aepyceros melampus*) (IFAW, 2016; Snyman et al., 2021). Nevertheless, it the pursuit of iconic African animals such as lions (*Panthera leo*), savannah elephants (*Loxidonta africana*) and giraffes (*Giraffa camelopardalis*) that appears most associated with TH in public discourse. While poorly managed hunting can have detrimental effects on wildlife conservation (for example, for lion in parts of Zimbabwe (Loveridge et al., 2007) and Zambia (Becker et al., 2013; Rosenblatt et al., 2014) and lions and leopards in Tanzania (Packer et al., 2011)), income from well-regulated hunting can support conservation, community development, and poverty alleviation (Naidoo et al., 2016; Dube, 2019; Parker et al., 2020; Di Minin et al., 2021) by providing revenue and incentivizing wildlife presence on habitat that might otherwise be converted to agriculture and other uses detrimental to biodiversity conservation.

Strenuous objections to TH, especially from governments, academics, and animal protection advocacy organizations, raise serious doubts about whether it can persist as a socially acceptable form of wildlife management (Batavia et al., 2019; Dickman et al., 2019; Drake et al., 2020; van Houdt et al., 2021). International outrage following the hunting of a lion in Zimbabwe, known locally as Cecil, in July 2015 brought such objections into sharp relief (Macdonald et al., 2016). Since Cecil's death, there has been a concerted effort by multiple organizations globally, often with celebrity backing, to have trophy hunting banned outright, to ban the import of hunting trophies, and to name-and-shame trophy hunters in national and international media (Jacobs, 2022). In response, many conservation scientists, practitioners, and African community leaders have urged caution, emphasizing the need for an evidence-based approach to TH generally, including restrictions on trophy hunting import bans (Dickman et al., 2019; Johnson et al., 2019; Hart et al., 2020; Parker et al., 2020).

TH is of interest to the public in the Global North, and features often in the media (e.g., Morss, 2021; Jacobs, 2022; data in this study). Mainstream media shapes public opinion (McCombs and Valenzuela, 2020), and public opinion, in turn, can shape political opinion and inform policy choices. Research on dynamic interrelationships between public opinion, media advocacy, and policy has tended to focus on issues such as foreign policy and climate change (Soroka, 2003; Baum and Potter, 2008), but recent studies demonstrate they are important in biodiversity conservation. For example, Shiffman et al. (2020) showed that inaccurate and biased reporting of conservation threats to sharks, in particular a media focus on shark-finning in preference to other more important threats, shifted public opinion towards a position where sustainable shark fisheries are thought to be impossible. This then pushed people towards media-attractive shark finning policies and away from other policies that would likely have far greater impact on shark conservation. Shiffman et al., 2021 analysis of newspaper coverage in English-speaking countries demonstrated a bias in favor of charismatic terrestrial species compared to marine species. Bombieri et al. (2018) argued that biases in coverage of predator attacks may decrease support for predator conservation. Chandelier et al. (2018) demonstrated differences in how local and national newspapers framed stories about recolonizing wolves in France, with implications for wolf management.

Legislation that directly or indirectly restricts well-regulated TH could have negative conservation impacts in areas of high conservation concern and importance, as well as negative economic impacts in these same areas (Dickman et al., 2019; Parker et al., 2020). It is therefore important to understand what media information the public and policy makers receive on the issue. In this study we analyze all trophy hunting articles

published in the 15 most popular national UK newspapers from July 2010 to June 2020. This date range provides five years of coverage either side of the death of Cecil the lion and allows us to examine differences in mainstream media coverage of TH before and after this event. We examine the sentiment of media coverage, as well as the taxonomic and geographical foci of TH articles to assess how these compare with TH in reality. This approach allows us to investigate how TH is covered in UK mainstream print media, and whether the death of Cecil is associated with any changes in that coverage.

Methods

Selecting articles for inclusion

We identified the 20 most popular news outlets producing print newspapers as those appearing more than once in the top 20 lists provided by circulation reports from 2017-2019 (OFCOM, 2019; Statista, 2020). We excluded newspapers with an exclusively regional focus, for example the *London Evening Standard*. This left 15 newspapers, eight tabloids (small page format newspapers, with generally shorter reports, more images and often more focus on popular, celebrity-focused news: *The Daily Star*, *The Express*, *The Sunday Express*, *The Daily Mail*, *The Sunday Mail*, *The Sun*, *The Daily Mirror*, and *The Sunday Mirror*) and seven broadsheets (large page format newspapers, generally more serious in tone and content than tabloids: *The Daily Telegraph*, *The Sunday Telegraph*, *The Guardian*, *The Independent*, *The Times*, *The Sunday Times*, and *The Observer*).

We searched the Nexis Uni database (formerly LexisNexis Academic Database) for articles published between 1 July 2010 and 30 June 2020 in each of these newspapers on the topic of TH, using the search term *trophy hun* OR trophy-hun**. This ten-year period covers five years before and five years after the death of Cecil the lion on 2 July 2015. Our search returned 1389 articles. We removed 490 articles that mentioned trophy hunting only in passing (and so contained insufficient information to judge overall sentiment, see below) or mentioned "trophy hunting" in a context unrelated to wildlife (e.g. sports teams "hunting" for trophies). We also removed 275 duplicate articles, comprising either identical articles, in which case we retained the most recent version, or slightly different regional versions, in which case we retained the version with the highest word count on the assumption that this version would contain more information (there were no cases where word count was equal). This left a total of 624 articles for analysis (Figure 1).

Coding articles

For each of the 624 articles included for analysis, we recorded the publication it appeared in, publication date, and the species and countries mentioned. We did not record a particular species when articles only contained generic terms encompassing multiple species, for example "big cats". When a species was listed using a name containing a location indicator, we considered the article to mention that location (e.g. "African lion", continent = Africa). We collapsed some lesser-known and rarely mentioned (< 2 mentions in total) species into a single species category, for instance by considering eland (*Taurotragus oryx*) and blesbok (*Damaliscus pygargus*) to be "antelope".

Two coders (NY and AH) independently read all 624 articles and judged the overall sentiment of the article regarding TH according to a protocol that we pre-tested on a subset of articles before formal coding (protocol available in Supplementary Material). Coders read each article with the starting assumption that it was neutral with regard to TH (offered no position in favor of or against trophy hunting, but simply reported events). After reading each article, coders could choose one of four options: "neutral" (reporting events without advancing a position or argument towards TH); "pro-TH" (using language or advancing arguments in favor of TH); "anti-TH" (using language or advancing arguments against TH); or "complicated" (describing the complexity of considerations surrounding TH).

When both initial coders agreed on an article's overall sentiment, we considered the article to have that sentiment. When coders disagreed on an article's overall sentiment, a third coder (DH) judged the article's sentiment independently (i.e. without access to previous coders' judgements). When the third coder agreed with one of the previous coders, we considered the article to have that sentiment. When the third coder did not agree with either of the previous coders, all three met to discuss the article and assign it a final sentiment (Figure 1).

We used R version 4.2.1 (R Core Team, 2022) to analyse and visualise data. We used the dplyr (Wickham et al., 2022), lubridate (Grolemund and Wickham, 2011), and reshape2 (Wickham, 2007) packages to organise data. We used the irr package (Gamer and Lemon, 2019) to calculate Cohen's kappa for interrater agreement. We used the rworldmap (South, 2011), sp (Pebesma and Bivand, 2005), sf (Pebesma, 2018), cleangeo (Blondel, 2021), patchwork (Pedersen, 2022), and ggplot2 (Wickham, 2016) packages to make figures.

Results

Initial coders agreed in their sentiment judgements for 459 articles (73.6%), showing moderate agreement (Cohen's kappa = 0.49, $p < 0.001$). The third coder agreed with one of the initial coders for 145 articles (23.2%), and 20 articles (3.2%) required discussion among all three coders (Figure 1). Of the 20 articles that required three-coder discussion to agree a final judgement, 2 (10%) were anti, 5 (25%) were complicated, 12 (60%) were neutral, and 1 (5%) was pro.

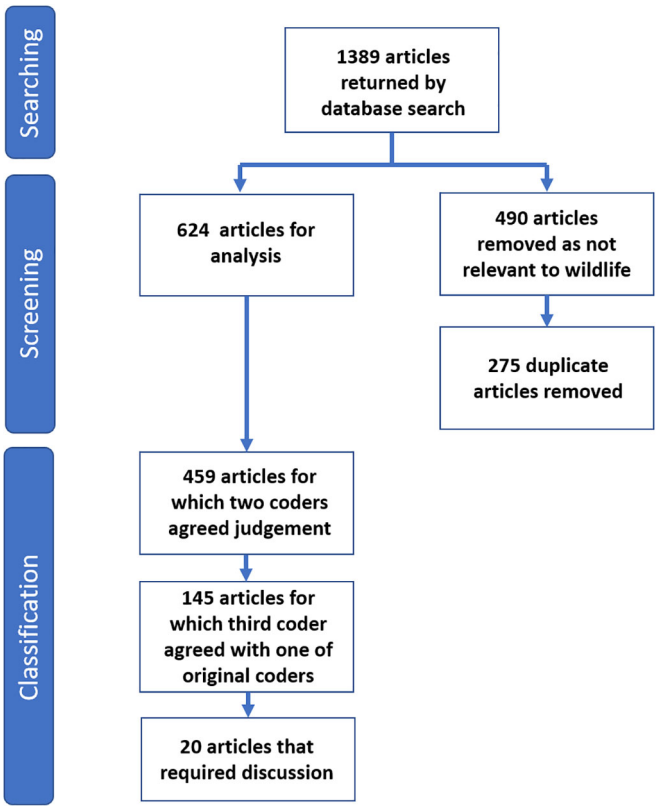

FIGURE 1
The process for selecting and classifying articles according to sentiment.

Of the 624 articles published on TH between 1 July 2010 and 30 June 2020, 311 (49.8%) appeared in tabloid newspapers and 313 (50.2%) appeared in broadsheet newspapers. Sixty-three articles (10.0%) were published during the five years before 1 July 2015 (pre-Cecil), while 561 articles (90.0%) were published during the five years after 1 July 2015 (post-Cecil) (Figure 2; Supplementary Table 1).

During the overall ten-year period, 12 articles (1.9%) were pro-TH, 394 (63.1%) were anti-TH, 109 (17.5%) were neutral, and 109 (17.5%) were complicated. A larger proportion of tabloid articles than broadsheet articles were anti-TH (84.2% versus 42.2%), while a larger proportion of broadsheet articles than tabloid articles were pro-TH (3.5% versus 0.3%), neutral (23% versus 11.9%), and complicated (31.3% versus 3.5%) (Figure 3).

Of the 63 pre-Cecil articles, 21 (33.3%) appeared in tabloids and 42 (66.7%) appeared in broadsheets. Of 561 articles post-Cecil, 290 (51.7%) were published in tabloids and 271 (48.3%) were published in broadsheets. Of the pre-Cecil tabloid articles, none (0%) were pro-TH, 14 (66.7%) were anti-TH, 5 (23.8%) were neutral, and 2 (9.5%) were complicated. Of the tabloid articles published after 1 July 2015, 1 (0.3%) was pro-TH, 248 (85.5%) were anti-TH, 32 (11.0%) were neutral, and 9 (3.1%) were complicated (Figure 4).

Of pre-Cecil broadsheet articles, 2 (4.8%) were pro-TH, 14 (33.3%) were anti-TH, 11 (26.2%) were neutral, and 15 (35.7%) were complicated. Of post-Cecil broadsheet articles, 9 (3.3%) were pro-TH, 118 (43.5%) were anti-TH, 61 (22.6%) were neutral, and 83 (30.6%) were complicated (Figure 4).

At least 70 species were mentioned in articles across the period, although in some cases common names were used for groups of species, such as “deer”, “bird”, “bear”, “antelope” and “rhino”. Consequently, some of the “species” mentioned, and counted here, are not taxonomically accurate species but will nonetheless allow a comparison between the animals mentioned in media with species actually hunted. The top 20 animals mentioned are shown in Table 1, with the top five being lion (*Panthera leo*), elephant (African species assumed, but with no distinction usually being made between forest (*Loxodonta cyclotis*) and savanna (*L. africana*) species)), rhino (one or both of the African species, white rhino (*Ceratotherium simum*) and black rhino (*Diceros bicornis*)), but rarely named to species level), leopard (*P. pardus*), and bear (combined to

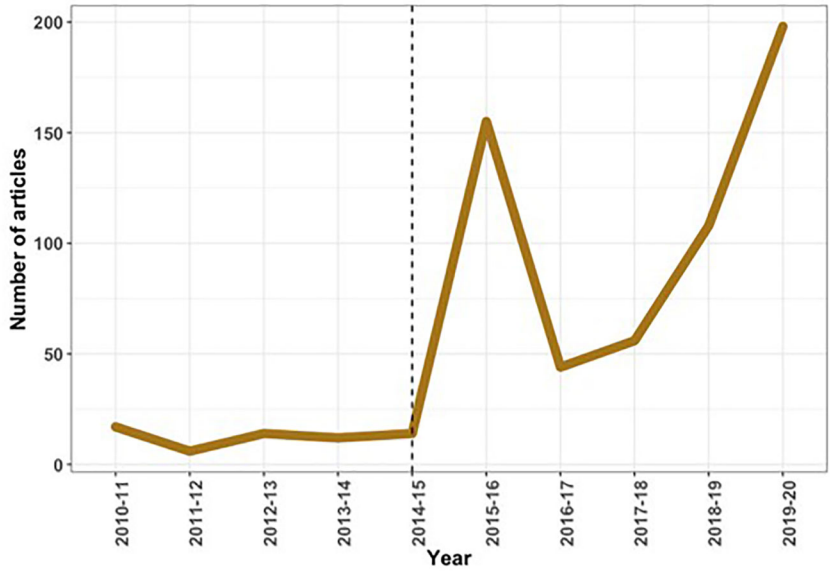

FIGURE 2
Number of articles on TH published by year between 1 July 2010 and 30 June 2020 (N = 624; 63 between 1 July 2010 and 561 between July 1 2015 and June 30 2020). Dotted line indicates July 2015, when Cecil the lion was killed.

include black (*Ursus americanus*), brown (*U. arctos*) and polar bear (*U. maritimus*)).

Of the 27 countries specifically named in 435 articles, the top four nations are southern African: Zimbabwe is the most mentioned across the 10-year period (N=146 articles; 33.6% of articles mentioning a country, 23.4% of all articles), followed by South Africa (N=105 articles; 24.1% of articles mentioning a country, 16.8% of all articles), Namibia (N=25 articles; 5.7% of articles mentioning a country, 4.0% of all articles) and Botswana (N=20 articles; 4.6% of articles mentioning a country, 3.2% of all articles). Collectively, these four nations are mentioned in 296 (68%) of articles that mention a country by name. Canada is mentioned in 19 articles (4.4% of articles mentioning a country, 3.0% of all articles) and the USA in 15 (3.4% of articles mentioning a country, 2.4% of all articles). Collectively, the UK and its individual nations are mentioned in 51 articles (11.7%, of articles mentioning a country, 8.2% of all articles). There was an increased focus on southern Africa and north America after Cecil, when reporting also included countries not mentioned before Cecil, including Mozambique, Ethiopia, Mexico, Brazil, Mongolia, and Pakistan (Figure 5).

Discussion

We analyzed all trophy hunting (TH) articles published over a ten-year period (July 2010 to June 2020) in the most popular UK national newspapers. More than 90% of all coverage occurred in the second half of the study period, following the killing of Cecil of the lion, marking this event as a watershed moment in the mainstream media reporting of TH (Figure 2). Although slow to gain media traction initially, interest in Cecil increased rapidly following an emotional mention by US talk show host Jimmy Kimmel on July 29th 2015 (Macdonald et al., 2016; Somerville, 2017). Media interest in trophy hunting declined steeply between 2015-16 and 2016-2017, but increased thereafter. In each post-Cecil year, the frequency of articles covering trophy hunting was higher (minimum = 44 articles, 2016-17) than any year in the pre-Cecil period, when trophy hunting was only rarely mentioned in the UK press (maximum = 17 articles, 2010-11) (Figure 2).

The overall sentiment of articles was largely anti-TH. This effect was more pronounced in tabloids (84.2% anti) than broadsheets (42.2% anti) (Figure 3). Tabloid articles tended to have a much clearer negative stance, with few articles adopting any form of nuanced position, reflected both in the higher frequency of anti-TH articles and the lower incidence of articles scored as complicated (3.5% in tabloids, 31.3% in broadsheets, Figure 3). The death of Cecil the lion is linked to a massive increase in the appearance of TH articles in UK national newspapers, but it also seems to have changed the sentiment of narratives presented. Tabloid articles against TH increased sharply post Cecil, whereas broadsheet anti-TH articles fluctuated across years during the same period and did not exhibit the same sharp increase (Figure 4). Broadsheets, as might be expected, had the highest proportion of complicated

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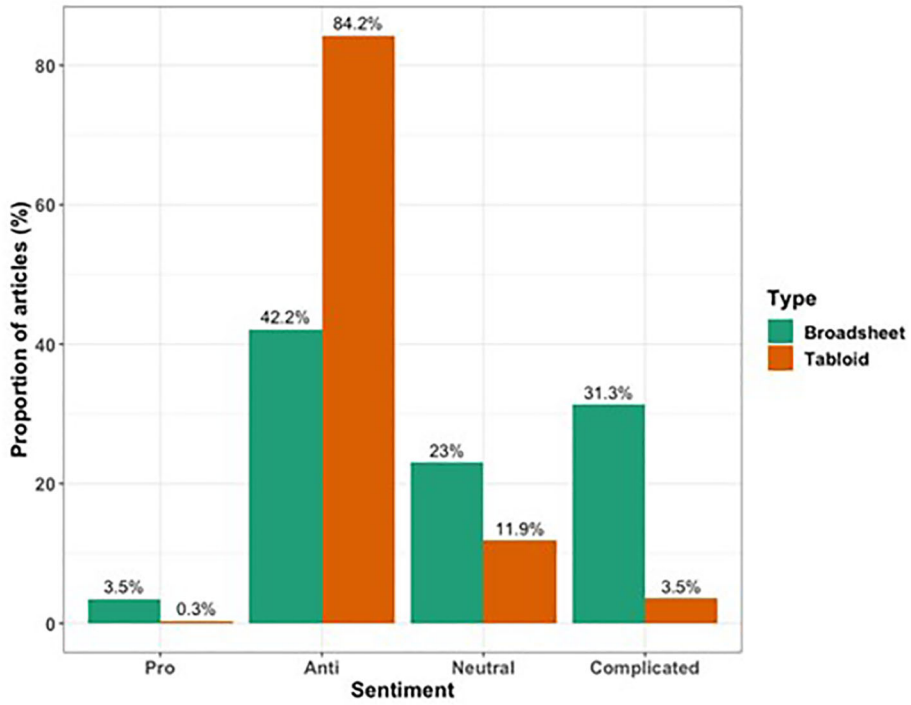

FIGURE 3
Proportions of tabloid and broadsheet articles by sentiment across all articles published between 1 July 2010 and 30 June 2020 (n = 624).

and neutral articles, and published almost all pro-TH articles. Pro-TH articles were very uncommon overall (3.5%), and only one appeared in tabloid newspapers following Cecil's death. Articles that recognized the nuance and complexity of TH (i.e. judged as complicated) were most common in broadsheet newspapers in the pre-Cecil period, further reinforcing that Cecil was a pivotal moment in UK newspaper coverage of TH.

Post-Cecil, there were clear spikes in articles in 2018-19 and 2019-20 (Figure 3). There are three factors during this time that we propose may be responsible for these increases in TH interest in UK print media. First, the Campaign to Ban Trophy Hunting (CBTH), a UK-based organization pushing for trophy import bans appear to have begun actively pushing trophy hunting stories (especially to tabloid newspaper *The Mirror*) across this period. Second, the UK government elected in 2019 had, as a manifesto promise, a commitment to ban the importation of hunting trophies. In response to this, and to media pushes by groups such as CBTH and the Born Free Foundation, more than 130 scientists and practitioners (including two authors here) signed a letter in the journal *Science* pointing out that such bans would likely imperil biodiversity (Dickman et al., 2019). This letter attracted considerable coverage and pushback in the press. Third, the nationally popular TV show *Love Island* had a contestant with a history of hunting. Trophy-style photographs of this contestant with a number of animals he had shot featured heavily in the press with an associated backlash that lasted for several weeks and likely accounted for the spike in (especially tabloid) coverage of TH in the media in 2019-20 (Figure 4).

Interestingly, the death of Cecil's son, Xanda, in July 2017 under essentially identical conditions was picked up by the UK media (BBC, 2017) but did not produce a noticeable spike in articles (Figure 2). Given clear continued media interest in trophy hunting through this period, this is perhaps surprising but serves to highlight further that the Cecil story was a particularly unusual media event. It could be that the lack of "novelty" offered by the Xanda story was part of the reason it did not go viral. In contrast, the next viral trophy hunting story, the Love Island spike, was certainly novel, being centered around a minor celebrity appearing in a tabloid-friendly reality TV show.

Media coverage of trophy hunted species was not well aligned with the reality of which species are commonly hunted. In total, eight of the top 10 species mentioned are southern African species (lion, elephant, rhino, leopard, giraffe, buffalo (assumed cape buffalo (*Syncerus caffer*) but rarely named specifically in articles), hippo (*Hippopotamus amphibius*) and zebra (*Equus* spp.; not identified to species level in articles). According to Snyman et al. (2021), the top 10 species hunted in South Africa, the country in the region with the greatest number of visiting hunters (ibid), are, impala (the most hunted), warthog

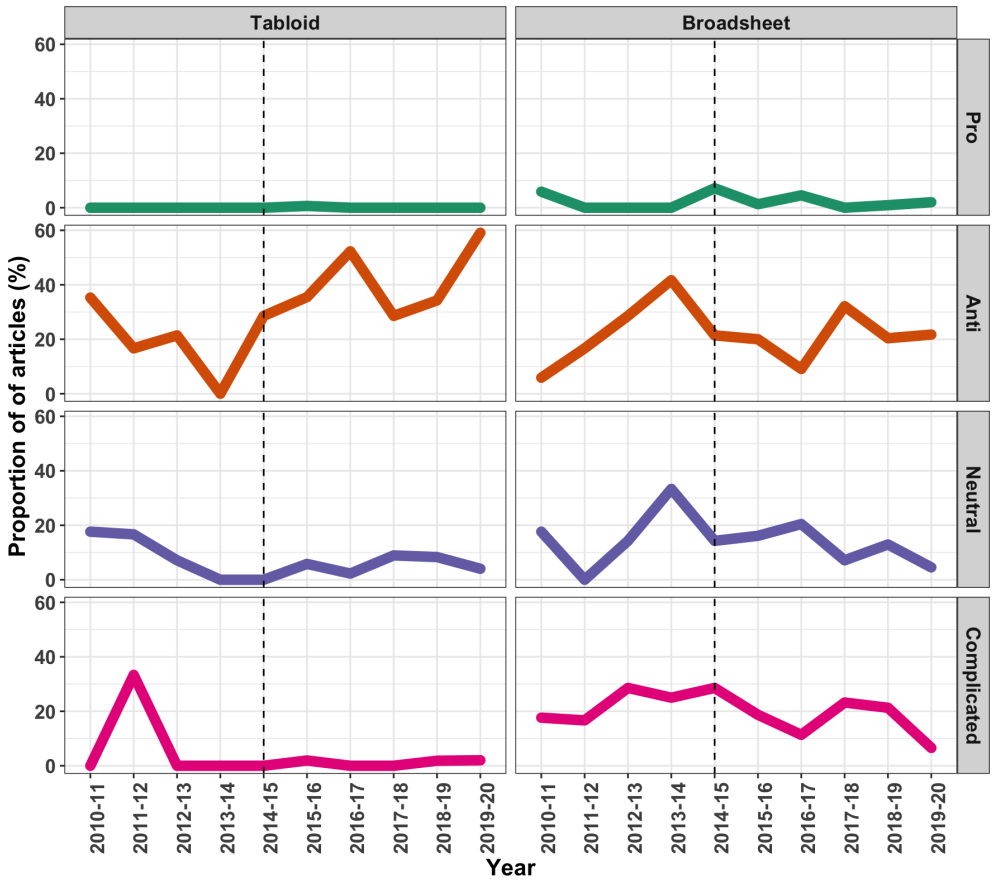

FIGURE 4
Proportion of tabloid (left) and broadsheet (right) articles by sentiment each year between 1 July 2010 and 30 June 2020. Colors indicate sentiment type. Dotted line indicates July 2015, when Cecil the lion was killed.

(*Phacochoerus africanus*), springbok, kudu, blesbok, Burchell's zebra (*Equus quagga burchellii*), gemsbok (*Oryx gazella*), blue wildebeest (*Connochaetes taurinus*), bushbuck (*Tragelaphus scriptus*) and nyala (*Tragelaphus angasii*). Thus, with the possible exception of Burchell's zebra, none of the most hunted species appear in the top 10 UK newspaper mentions, although three most-hunted species do appear in the top 20 (impala = 20th, wildebeest – 19th and warthog = 14th) (see Table 1). Even collectively, "antelope" did not make the top ten, although "deer" (not distinguished into species) was the eighth most mentioned. The so-called African Big Five (lion, leopard, elephant, rhino (black and white together) and cape buffalo) all appear in the top ten (although some mentions of buffalo conflate cape buffalo with water buffalo), and four of the Big Five (lion, elephant, rhino and leopard) are the top four mentions. Overall, UK newspaper coverage of trophy hunting appeared far more focused on species considered charismatic (Albert et al., 2018) than on species most commonly hunted (Bichel, 2021; Snyman et al., 2021). This represents a major inconsistency between the practice of TH globally and its portrayal to the public by UK newspapers, potentially creating a misleading impression that trophy hunters target exclusively, or primarily, charismatic animals such as the African Big Five. Images were not displayed in articles downloaded from Nexis Uni, but online checks showed that TH stories were commonly illustrated with images of readily identifiable African species such as lion, elephant and giraffe. The presence of these photos alongside stories of TH could reinforce this misleading impression among the public.

Trophy hunting is a global activity, but some countries are more associated with it than others, including some where TH is a well-established part of their conservation approach. Southern African nations, including South Africa, Namibia, Zambia, Zimbabwe and Tanzania are particularly popular destinations for hunters seeking African trophies, with hunters typically travelling from North America and Europe (IFAW, 2016; Snyman et al., 2021). In 2014, Botswana imposed a moratorium on hunting but lifted it in 2019 amid controversy that illustrates differences in local versus external perspectives on TH (Velempini, 2021; Hammond et al., 2022). Further afield, Pakistan (especially for argali (*Ovis ammon*) and

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TABLE 1 The top 20 animals mentioned in articles.

Rank	Mentions	Common name or name used in articles	Scientific name	Notes
1	383	Lion	*Panthera leo*	
2	235	Elephant	*Loxodonta Africana*	Assumed savannah elephant
3	127	Rhino	See note	Rarely identified to species, but refers to African species
4	125	Leopard	*P. pardus*	
5	106	Bear	*Ursus* spp.	*U. americanus, U. arctos, U maritimus*
6	92	Giraffe	*Giraffa* spp.	
7	85	Buffalo	*Syncerus caffer*	Assumed Cape buffalo
8	67	Deer	Various	Rarely identified to species
9	57	Hippo	*Hippopotamus amphibius*	
10	55	Zebra	*Equus*	Species not identified
11	42	Antelope	Various	Includes eland, blesbok and generic use of "antelope"
12	33	Crocodile	*Crocodylus niloticus*	Nile crocodile assumed
13	28	Baboon	*Papio* spp.	Not identified to species but likely *Papio ursinus*.
14-	24	Warthog	*Phacochoerus africanus*	Assumed common warthog not desert warthog *P. aethiopicus*
14-	24	Monkey	Various	Most likely vervet monkey *Chlorocebus pygerythrus*
14-	24	Sheep	*Ovis* spp.	Hunted species include *O. ammon, O. canadensis, O. dalli*
17	22	Goat	*Capra* spp.	May include *C. falconeri*,
18-	19	Cheetah	*Acinonyx jubatus*	
18-	19	Wildebeest	*Connochaetes* spp.	Both *C. taurinus* and *C. gnou* are hunted but species not identified.
20	18	Impala	*Aepyceros melampus*	

Articles often used generic names for large groups of species, such as "bear" or "deer". In some cases, we have assumed the species identity based on context (see Notes column).

markhor), Scotland (red deer and red grouse (*Logopus lagopus*), England (fallow (*Dama dama*) and non-native muntjac (*Muntiacus reevesi*) and Chinese water deer (*Hydropotes inermis*)), the USA and Canada (including white-tailed deer, moose (*Alces alces*), bears (American black bear, brown bear and polar bear) and cougar (*Felis concolor*)) and New Zealand (especially non-native red and fallow deer, tahr, chamois (*Rupicapra rupicapra*) and wild goat (*Capra*)) are all popular destinations. Almost certainly because of Cecil the lion, Zimbabwe was the most mentioned country across all articles, followed by South Africa. South Africa is a major destination for African trophy hunting of many species (IFAW, 2016; Snyman et al., 2021), but UK print media mentions appeared to be swayed largely by coverage of captive-bred lion hunting, commonly termed "canned hunting". Canned hunting brings none of the conservation benefits associated with well-regulated TH, and conservationists who defend TH for its conservation benefits tend not to support canned hunting (Webster et al., 2022). By failing to distinguish between TH and canned hunting in simplistic coverage, UK newspapers again risk misleading the public.

Our analysis shows a clear pre- and post-Cecil divide in terms of quantity and sentiment of coverage of TH in UK newspapers. Coverage increased during the ten years we studied (Figure 2), with a preponderance of anti-TH articles focused on charismatic species. These species are not in fact subject to a high degree of TH, and in several cases hunting them has been linked to well-established conservation benefits ('t Sas-Rolfes et al., 2022), but these species are well-known and well-loved by target audiences. Less well-known and less charismatic species like impala or springbok are rarely if ever mentioned, despite many more individuals being hunted. Likewise, and doubtlessly related to the species most mentioned, much of the UK newspaper narrative has solidified around southern African nations despite TH being a globally significant activity. Overall, the death of Cecil the lion is associated with a pronounced increase in coverage of, and a marked simplification of narratives on TH that has gone hand-in-glove with an increase in public disapproval and proposed legislative restrictions on TH.

The lack of recognition of the complexities of hunting in media coverage also tends to exclude the perspectives of rural Africans whose self-determination is at stake and who must bear the costs of living alongside iconic but often dangerous animals. We urge researchers studying wildlife conservation in sub-Saharan Africa to convey these complexities to the media, to discuss more transparently when TH is successful, when it is not successful, and why some people might choose to have it as part of their wildlife management strategy. Similarly, we urge journalists to follow Morss (2021) by looking beyond simplistic narratives and recognizing that TH is not the simple, clear-cut outrage that UK newspapers have tended to depict, especially post-Cecil. Given the proven benefits of TH to conservation in many of the nations, and for many of the species, most commonly depicted in UK newspaper coverage, the trends we uncover are concerning from the perspective of biodiversity conservation and from the perspective of social justice. Left

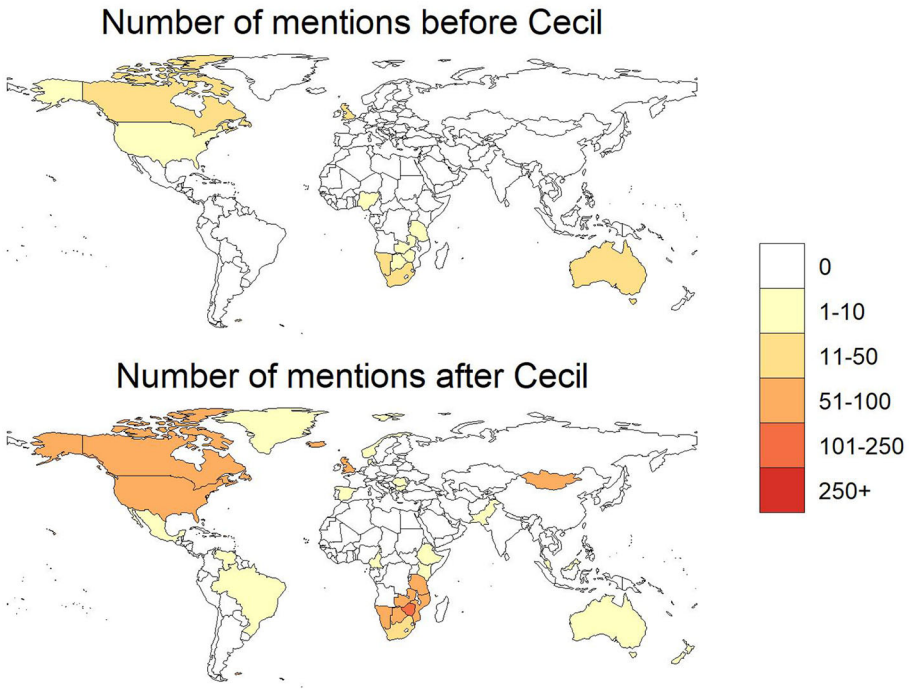

FIGURE 5
Twenty-seven countries are mentioned specifically across the 10 year period, with a focus on southern Africa both before and after Cecil. Zimbabwe is the most mentioned across the 10-year period as a consequence of a high number of mentions after Cecil (right hand side).

unchecked, UK newspaper depiction of TH has the clear potential to cause negative outcomes for conservation through its impacts on public perception and political opinion, and therefore on policy. Policies that restrict or constrain well-regulated TH may undermine self-determination of people living in the Global South to serve preferences of people living in the Global North. In doing so, they risk perpetuating enduring injustices associated with international conservation that have recently attracted substantial criticism (Chaudhury and Colla, 2020; Madzwamuse et al., 2020; Rudd et al., 2021).

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

NY and AH share first authorship. AH devised the study and lead the write up and analysis, with all authors contributing. NY undertook the primary research under AH and DH supervision. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fcosc.2022.1061295/full#supplementary-material

SUPPLEMENTARY FILE 1
Protocol for trophy hunting article inclusion and coding. Caption for File 2 should read: Full breakdown of number of articles judged for sentiment.

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