

Shifting Perceptions of Herpetofauna: A Note on the Implications of Social Media

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Throughout history, snakes have been negatively portrayed and associated with hostility in mainstream media, traditional Judeo-Christian beliefs, and folklore. These representations have played a significant role in shaping unfavorable attitudes towards snakes in Western societies, (Shine, *et al.*, 2000), (i.e., Adam and Eve, Snakes on a Plane, Anaconda, ect.).

Thus, a typical response when people find a snake is simply to kill it. People will employ methods of euthanasia such as garden tools, lethal traps, and guns to dispatch snakes, frequently citing concerns for their children and or pets. In fact, people are so perturbed by snakes that this response is not even reserved to when a snake may pose a threat. It has even been shown that while driving, people will swerve their cars to intentionally run over snakes when given the opportunity (Secco, *et al.*, 2014). Unfortunately, this indiscriminate killing of snakes harms populations across the board, both venomous and non-venomous (Bansal, 2020).

In stark contrast to seemingly universal disdain for snakes and reptiles, we see a subculture of herpetofauna enthusiasts. These enthusiasts partake in “Herping”, the act of searching for reptiles and amphibians either in recreational pursuits or for scientific data collection. Herpers, particularly herping “influencers”, are gaining traction on social media. These public figures range from python hunters to hobbyists to researchers. These accounts reach vastly different audiences, and the content posted can have varying implications for public perception of snakes. Social media can play an important role in educating the public by producing content on untrue myths about herpetofauna without the sensationalism seen in mainstream cinemas (Rabbe, *et al.*, 2021), and is now considered the best way to spread awareness about herpetofauna (Sajjad, 2021). With the growing popularity of herping influencers, more research is needed to assess changes in public perception of serpents and herpetofauna in relation to media content and conservation efforts.

With this rise in herpetofauna content creators, we see a niche group focusing on anthropomorphic reptile and amphibian content. These anthropomorphic social media accounts, such as Linguini the Snake (Linguini, nd), could further garner public support for conservation and interest in reptiles and amphibians. These accounts make lighthearted content, typically assigning herpetofauna human emotions and words and even going as far as dressing them in personalized clothing. Since these animals typically have a general image problem due to their lack of expressiveness and perceived lack of intelligence (Eddy, *et al.*, 1993), assigning them human characteristics or behaviors may be able to influence these animals' desirability as companions (Grasso, *et al.*, 2020), in turn helping conservationists develop empathy towards difficult target species (Chan, 2012).

Python hunters on social media may have varying influence on public support for snake conservation. In South Florida, Burmese pythons are an invasive species, causing economic and environmental harm (Wilson, 2017). It has been shown that how social media portrays human-wildlife conflict, such as the python invasion, plays a substantial role in how certain species are perceived (Nyhus, 2016). Presenting them in certain light on social media may exacerbate negative stereotypes of serpents

and make it difficult to alter negative beliefs. Python hunting that is sensationalistic, with monster-like portrayals, may influence public support away from snake conservation in general. However, python hunters on social media are also bringing necessary exposure to the issue of invasive reptiles and their impact on native fauna. These hunters can positively affect the situation through increased awareness resulting in steps toward corrective action (Stone, 2014).

Researchers have the potential to shed a positive light on herpetofauna, due to their informative content (Rabbe, *et al.*, 2021), but ethical dilemmas may arise from their pursuits geared at creating content for social media. The posts shared by this group typically provide valuable details about biological characteristics and highlight the impact of human activities on wildlife, thus promoting public awareness about wildlife conservation. Such a framework holds the potential to strengthen wildlife management and conservation initiatives (Wu, 2016). However, as intentional human-herp interactions increase, concerns regarding herping ethics have also emerged within researcher and hobbyist communities. Debates have surfaced on various topics, including the choice between "in-situ" photography and posed/handling shots, staged captures of wildlife, the potential transmission of

diseases between animals, and the disclosure of locations where rare species can be found. In their pursuit of capturing the perfect shot, herpers may unintentionally harm the very species they are working with through improper handling practices.

The impact of hobbyists in the herping community varies significantly, depending on their style of content creation and subgroup within the hobbyist division, such as YouTubers and recreational herpers. Some hobbyists and Youtubers actively promote animal welfare and create educational content, aligning their impact closely with that of researchers. However, the issue lies in certain practices, including staged captures and findings, handling of species without proper permits, irresponsible or incorrect handling of venomous snakes, harassment of animals, and deliberately placing animals in precarious situations for content creation. In 2021, several high profile youtubers in south Florida were exposed by a fellow youtuber for catching and passing around pythons to be used in multiple staged scenes involving inhumane bow hunting videos and putting pythons in storm drains to film python capture scenes (New England Reptile, 00:19–07:51). The pursuit of viral content could drive unethical human-herp interactions and contribute to the amplification of fear and disdain towards herpetofauna for personal gain.

While I do believe the ever-growing presence of herping on social media, in particularly the physical handling and subsequent posting of the handling of reptiles and amphibians, warrants a slew of new ethical and social dilemmas in the context of public perception and animal welfare, it can also be a catalyst for paradigm shifts. Herping influencers are shifting paradigms through their informational posts, their handling of typically feared or disliked animals, and their encouragement for others to safely get hands-on with herpetofauna. This idea can be supported by studies showing that physical contact with snakes is associated with snake likability (Jean-Marie Ballouard, *et al.*, 2013), and increased knowledge about snake behavior and biology is positively correlated with positive attitudes toward snakes (Liordos, *et al.*, 2018). Therefore, one could surmise that the active presence of herpers on social media, properly handling and spreading information, could shift public perception away from the historically negative media surrounding herpetofauna. Thus, turning the focus from conflict towards a new era of co-existence and tolerance.

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