



### EXCURSIONS AND OTHER NEWS

Small insights in BioS points of view, field trips, and other stuff we do.

#### Lights, Camera, Action! Lab Rotation at ZDF Terra X

Simon Schäfer

I didn't expect to ever find myself on a film set together with the Bavarian minister of justice and astrophysicist Harald Lesch. But no, we didn't shoot a promo clip for the Bavarian space program. Instead, I just arrived for the first day of my internship at the editorial group for nature and technology of the ZDF, one of the main, publicly funded TV broadcasters in Germany. For the following two months, I had the opportunity to get insights into the work of the German TV channel and its science and nature documentaries.



The editorial team currently works on TV formats, such as *Terra X Faszination Erde*, *Terra X Harald Lesch* and supervises the YouTube channel for the latter. These documentaries and clips cover a broad variety of topics around science and nature, reaching from rainforest exhibitions to current discoveries on black holes. I was incredibly excited to get to know the work of the editorial group, since I've been watching Terra X documentaries from an early age. Overall, I was able to take part in all aspects of the work being done there. This included tons of meetings, mostly about refining episodes in production, as well as shootings or calls with experts on our topics. Most of my time I spent with the team that was currently working on two episodes about climate change and extreme weather events. I assisted them by doing a lot of research on the content of the episodes. To gather additional video material, I contacted various organizations and conducted further research using video databases. In addition, for the social media and YouTube team, I prepared several community posts to promote recently uploaded clips.

All these experiences gave me a better understanding of both the work routine of an editorial department and TV production, and what matters when creating science-based video content. The most important lesson I took away was the power of storytelling. No matter how dry or uncomfortable the content may be, if you manage to wrap it in a captivating story (and there are many ways to do that), it will resonate with people. And in case you are still wondering why the Bavarian minister of justice was hanging around at the Terra X studio – he just received a little tour around the facilities. Might be a fan of the show, as well.

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#### Science Unpacked - The BioS Podcast

Patience Blossfeld Dodgson

Get ready! This month, we are launching an exciting new feature for you: "*Science Unpacked, The BioS Podcast*" with deep dive interviews and thorough looks into research at TU Dresden and the world of science. In this brand new series we will ask your burning questions that cannot fit on a page!

Month to month, our BioS Reporters will seek out inspiring scientists and students in the wild to give backstage glimpses into research and future dream jobs. We will also ask *What's the Evidence?* behind the science reported in the headlines, as researched by BioS students this year. Tune in on the bike, in the train, or the kitchen as we will unpack science for you.

Our first episode will travel back in time to the origins of our BioS Reports journal with Helen Rothfuß, Simon Schäfer, and Klaus Reinhardt. The episode "Science Communication: What Is That?" is out now on Spotify! Scan the QR code and perk up your ears!



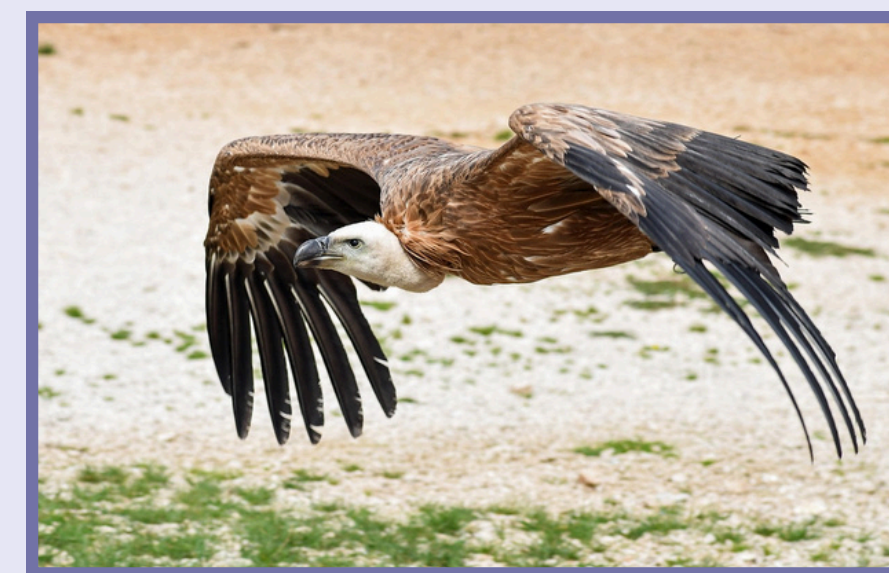
### ANIMALS AND MONEY

This part of BioS Reports unravels relationships between animals and the economy.

#### Wings of the Economy: India Loses Billions to Extinction of Vultures

Mariia Voloshyna

Nature provides crucial economic services, often overlooked. Among them are vultures—nature's cleanup crew—whose disappearance has severe financial and environmental consequences. Just as society learned the value of recycling, losing a key player in the natural recycling chain can cost billions. India is home to nine vulture species, but their populations have plummeted since the 1990s. Between 1992 and 2003, *Gyps indicus* and *Gyps tenuirostris* declined by 99.7% and 97.4%, respectively, while overall numbers dropped from 40 million to 19,000 by 2020 [1]. The primary cause of vulture extinction was diclofenac, a veterinary drug that caused kidney failure in the birds. Its 2006 ban and replacement with meloxicam halted the decline, but recovery requires safe zones and captive breeding [2].



Vultures are vital to India's agrarian economy. Their disappearance burdens farmers by increasing carcass disposal costs and raising disease risks in livestock. Alternative disposal methods—burial, incineration, and processing plants—are costly, with artificial treatment plants costing India an estimated US\$ 600 million annually. In contrast, a single vulture provides ecosystem services worth US\$ 187- 235 per year [3]. Without vultures, carcasses decay slowly, attracting disease-spreading pests. Between 1992 and 2006, 5.5 million additional dogs emerged, leading to 38.5 million extra dog bites and 47,300 deaths. Rabies treatment alone costs US\$ 563 million annually. Dog sterilization, at US\$ 5-10 per vaccine and US\$ 15-30 per procedure, further strains budgets [4]. Maintaining vulture populations would reduce these expenses. Vultures consume infected carcasses safely due to their highly acidic gastric juice (pH 1-2), which destroys pathogens. Unlike jackals or rats, they do not spread infections, acting as natural disease regulators. They also practice self-cleaning through bathing, reducing parasite transmission [1].

Recognizing their importance, India has implemented conservation strategies, including captive breeding, vulture restaurants (safe feeding sites), and bans on harmful veterinary drugs. Ecotourism around vulture conservation also supports local economies by attracting wildlife enthusiasts [3]. Vultures significantly reduce healthcare costs, pollution, and economic losses in agriculture and livestock. Restoring their population is both an ecological necessity and a sound economic investment, potentially saving billions in medical, waste management, and conservation expenses.

