# Climate change emerges as biggest threat to imperilled US species, study finds



A recent study has revealed a significant shift in the threats facing imperilled species across the United States, identifying climate change as the most widespread human-caused danger surpassing traditional challenges such as habitat loss, pollution, invasive species, and overexploitation.

The research, led by Talia E. Niederman and collaborators from the nonprofit conservation group Defenders of Wildlife, examined data on 2,766 species listed as imperilled under the U.S. Endangered Species Act (ESA), including those found in U.S. territories. The team evaluated five principal anthropogenic threats identified through ESA documentation, International Union for Conservation of Nature (IUCN) assessments, and climate sensitivity analyses: climate change, land and sea use changes, species overexploitation, pollution, and invasive species.

Their findings show that while a large majority of species (86%) currently face multiple overlapping threats, climate change now affects an unprecedented 91% of those listed. This represents the first occasion that climate change has overtaken other factors as the dominant risk to imperilled species in the U.S.

Supporting this, the study highlights the growing scientific consensus on human activities driving recent global warming. The Intergovernmental Panel on Climate Change (IPCC)’s Sixth Assessment Report concluded unequivocally that emissions of greenhouse gases—including carbon dioxide, methane, and nitrous oxide—from industrial-era human activities are the principal cause of observed changes in the atmosphere, oceans, cryosphere, and biosphere. This position is echoed by NASA in their climate change explanations.

The rapid pace of environmental alterations spurred by warming temperatures is creating ecosystems changes faster than many species can adapt. Groups particularly vulnerable in the U.S. include corals, bivalves, and amphibians, according to the study.

Given these realities, the authors recommend that climate sensitivity be explicitly incorporated into ESA species listing decisions and management plans. This approach aims to ensure future conservation strategies more effectively address biological threats in a warming world.

A map accompanying the study depicts global surface temperature anomalies for 2024, illustrating the extent to which regions deviate from the 1951-1980 average. It underscores how much warmer many parts of the Earth have become, with normal temperatures appearing in white, warmer areas in red and orange, and cooler regions in blue.

Overall, the study marks a pivotal moment in recognising climate change as the foremost pervasive threat to biodiversity in the United States. It offers critical insights for policymakers and conservationists focused on mitigating species decline amid an evolving climate landscape.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.space.com/the-universe/climate-change/climate-change-is-officially-the-leading-threat-to-imperiled-species-in-the-united-states> - This article corroborates the shift citing climate change as the leading threat to imperiled species in the U.S., surpassing other threats like habitat loss and pollution, affecting 91% of ESA-listed species.
2. <https://bioengineer.org/new-study-identifies-climate-change-as-the-primary-threat-to-endangered-species/> - This piece supports the research finding that climate change is now the primary threat to endangered species under the U.S. Endangered Species Act, affecting a vast majority of species.
3. <https://phys.org/news/2025-04-climate-threat-imperiled-species.html> - This article reinforces the study's conclusion that climate change impacts 91% of ESA-listed species, highlighting it as the most pervasive threat among other hazards like land use changes and pollution.
4. <https://defenders-cci.org/publication/agency-management-plan-climate-change/> - This resource supports the notion that climate change is acknowledged as a significant threat by agencies, emphasizing the need for better management plans to address its impacts.
5. <https://www.ipcc.ch/report/ar6/syr/> - The IPCC's Sixth Assessment Report robustly supports the scientific consensus that human activities are the primary drivers of recent global warming and related environmental changes.
6. <https://climate.nasa.gov/faq/3028/how-do-we-know-that-recent-climate-change-is-mostly-caused-by-human-activities/> - This NASA resource echoes the IPCC's conclusions, confirming that emissions of greenhouse gases from human activities are the principal cause of observed climate changes.
7. <https://news.google.com/rss/articles/CBMi1gFBVV95cUxOaVdHUHUwVnZMc2pQSElBWFNUc3NFMzVZc0RSZTJoTXFyRkptYy10YVdveFBnUUtGM2x2OVdKNHdkMlR1SHlIa05pRTRSeTROTUJMZnh1VHZaMWVDMmRJVURnY214bzNTVGhrdjdFWDlUOExqNkdPcEc5elNwLTVRTU8tX3lMTFFlekZYQm8yZDk0X0NveGZlZUI1RzFsUTZFd2YxNjl6QmoyWmJiODE0OUg0TzRBai1pZG5mN09NRnVaVDZjYU5hLTYxQW5Yd1d4aE1sOUZR?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data