



NHSMUN

National High School Model United Nations

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A Note on the NHSMUN Difference

Esteemed Faculty and Delegates,

Welcome to NHSMUN 2027! We are Armen Bagdassarian and Sabeeh Mirza, and we are elated to serve as this year's Secretaries-General. Thank you for choosing to attend NHSMUN, the world's largest and most diverse high school Model United Nations conference. As a space for collaboration, consensus, and compromise, NHSMUN strives to transform today's brightest thinkers, speakers, and collaborators into tomorrow's leaders. We believe that an emphasis on education through simulation is paramount to the Model UN experience.

Realism and Accuracy: Although a perfect simulation of the UN is never possible, we believe that one of the core educational responsibilities of MUN conferences is to educate students about how the UN System works. We strive to invite real UN, NGO, and field experts into each committee through our committee speakers program. Moreover, we arrange meetings between students and the actual UN Permanent Mission of the country they are representing. These exclusive resources are only available due to IMUNA's formal association with the United Nations Department of Global Communications and consultative status with the Economic and Social Council. No other conference goes so far to deeply immerse students into the UN System.

Educational Emphasis: At the heart of NHSMUN lies education and compromise. Part of what makes NHSMUN special is its diverse delegate base. As such, when NHSMUN distributes awards, we strongly de-emphasize their importance in comparison to the educational value of Model UN. In particular, our daises look for and promote constructive leadership and diplomacy that strive toward consensus, as real ambassadors do in the United Nations.

Research and a Dedicated Staff: Our staffers care deeply about delegates' experiences and what they take away from their time at NHSMUN. Our Directors spend over six months preparing Background Guides, in addition to Update Briefs written to reflect the rapidly changing nature of the topics to be discussed. Our staffers are trained rigorously to provide the best conference experience possible. Our daises provide thoughtful comments on submitted position papers. Our staff aims to tailor the committee experience to delegates' reflections and research, but also to facilitate an environment where all delegates' thoughts can be heard.

Empowering Participation: The UN relies on the voices of all of its member states to create resolutions. This is our philosophy at NHSMUN too. Our Rules of Procedure and our staff focus on making every voice in the committee heard, regardless of country assignment or skill level. Additionally, unlike many other conferences, we also emphasize delegate participation after the conference. Delegates spend countless hours researching topics critical to the UN and broader international sphere.

Delegates, it is our sincerest hope that your time at NHSMUN will be thought-provoking and stimulating. NHSMUN is an incredible time to learn, grow, and embrace new opportunities. We look forward to seeing you work both as students and global citizens at the conference.

Best,

Armen Bagdassarian
Secretary-General

Sabeeh Mirza
Secretary-General

Position Paper Requirements

Delegate research and preparation is a critical element of attending NHSMUN and enjoying the debate experience. We have provided this Background Guide to introduce the topics that will be discussed in your committee. We encourage and expect each of you to critically explore the selected topics and be able to identify and analyze their intricacies upon arrival to the conference.

The task of preparing for the conference can be challenging. To assist delegates, we have updated our [Beginner Delegate Guide](#) and [Advanced Delegate Guide](#). These guides contain more detailed instructions on how to prepare a position paper and excellent sources that delegates can use for research. Use these resources to your advantage. They can help transform a sometimes overwhelming task into what it should be: an engaging, interesting, and rewarding experience.

To accurately represent a country, delegates must be able to articulate its policies. Accordingly, NHSMUN requires each delegation (the one or two delegates representing a country in a committee) to write a position paper for each topic on the committee's agenda. More information about how to write and format position papers can be found in the [Research Guide](#). To summarize, position papers should be structured into three sections.

I: Topic Background – This section should describe the history of the topic as it would be described by the delegate's country. Delegates do not need to give an exhaustive account of the topic, but rather focus on the details that are most important to the delegation's policy and proposed solutions.

II: Country Policy – This section should discuss the delegation's policy regarding the topic. Each paper should state the policy in plain terms and include the relevant statements, statistics, and research that support the effectiveness of the policy. Comparisons with other global issues are also appropriate here.

III. Proposed Solutions – This section should detail the delegation's proposed solutions to address the topic. Descriptions of each solution should be thorough. Each idea should clearly connect to the specific problem it aims to solve and identify potential obstacles to implementation and how they can be avoided. The solution should be a natural extension of the country's policy.

Each topic's position paper should be **no more than 10 pages long** double-spaced with standard margins and 12 point font size. This is a maximum; **3–5 pages per topic is often a suitable length**. The paper must be written from the perspective of your assigned country and should articulate the policies you will espouse at the conference.

Each delegation is responsible for submitting position papers on or before **February 26, 2027**. If a delegate wishes to receive detailed feedback from the committee's dais, their position paper must be submitted on or before **February 5, 2027**. The papers received by this earlier deadline will be reviewed by the committee dais and returned before February 26. Instructions on how to submit position papers will be shared directly with faculty advisors.

Submission instructions for position papers will be sent to faculty advisers via email. If delegations are unable to submit their position papers on time, please contact us at nhsmun@imuna.org.

Delegations that do not submit position papers will be ineligible for awards.

Committee History

The Convention on Migratory Species was founded in 1979 under the supervision of the United Nations Environment Programme. It was created to address the increasing need for conservation efforts for migratory species and their habitats, which would need the cooperation of all states “in which such species spend any part of their life cycle.”¹ CMS defines migratory species as “species that cyclically and predictably cross one or more national jurisdictional boundaries.”² Currently, it is the only convention that centers on the preservation of migratory species, migratory routes, and their habitats.³ The Convention on Migratory Species prioritizes bringing awareness to and creating solutions for issues such as endangered migratory species and the influence of climate change on biodiversity. The convention discusses solutions for problems that have been negatively affecting animal populations, bringing innovative approaches through partnerships.⁴

CMS lists migratory species and populations in two appendices. Appendix I covers those endangered throughout all or a significant portion of their range; parties work to protect them and their habitats. Appendix II covers migratory species that would benefit significantly from international cooperation, including those with an unfavorable conservation status. A species’ International Union for Conservation of Nature’s (IUCN) Red List status may inform a CMS listing decision but does not automatically place it in a CMS appendix. The convention works to protect a range of migratory species, such as birds, sharks, whales, insects, and reptiles, to preserve biodiversity.

The decision-making body of CMS is the Conference of Parties, which meets to make decisions on CMS-related issues. Approximately every three years, CMS parties meet at their Conference of the Parties (COP) to review migratory species conservation and set priorities. This is critical, as it affects and gives new meaning to the mission and purpose of each country.⁵ CMS often works with international organizations, member states’ governments, and private organizations.⁶ CMS is usually called upon by other organizations to assist in creating solutions that impact biodiversity and animal welfare, such as the United Nations Environment Programme.⁷

Since March 1, 2022, CMS has a total of 133 parties. This includes 132 member states, along with the European Union. Although CMS has a large scope and has been effective thus far, its impact has been limited in the nonmember states and by the advancement of climate change. Furthermore, developed and developing countries do not receive equitable treatment, especially in the face of such demands. However, shortly after the 13th Session of the Conference of Parties, a resolution was adopted that allowed developing states to receive further financial assistance concerning conservation efforts.⁸ Promoting major acts on a global scale has worked constantly in various regions. New partnerships with other organizations symbolize progress in the fight for the principles that guide the Convention on Migratory Species.

1 Convention on the Conservation of Migratory Species, Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF

2 CMS, FAQ, <https://www.cms.int/en/faq>

3 CMS, Introduction, www.cms.int/en/legalinstrument/cms

4 Ramirez, Iván, CMS Mandate and Role of MIKT Update from CMS COP14, 2024, www.cms.int/sites/default/files/document/5.%20CMS%20Mandate%20and%20lessons_RAMIREZ.pdf.

5 New Zealand Department of Conservation. “Convention on the Conservation of Migratory Species of Wild Animals (CMS).” Government of New Zealand. 2020. www.doc.govt.nz/about-us/international-agreements/spccies/migratory-species/

6 CMS, United Nations Environment Programme, Inputs Towards Enhancing the Relationship Between the CMS Family and Civil Society; UNEP/CMS/S:C45/Inf.1, November 6, 2016, www.cms.int/sites/default/files/document/cms_stc45_inf1_c.pdf

7 CMS, UNEP, Report of the United Nations Environment Programme, UNEP/CMS/S+C53/Doc.8, October 19, 2022, www.cms.int/sites/default/files/document/cms_stc53_doc.8_unep-report_c.pdf.

8 Sellheim, Nikolas, and Jochen Schumacher, “Increasing the Effectiveness of the Bonn Convention on the Conservation of Migratory Species.” *Journal of Wildlife Law Policy* 25, no. 4 (December 15, 2022): doi.org/10.1080/13880292.2022.2153461

TOPIC A

CMS | NHSMUN 2027

Protecting the Migration Patterns of the Snowy Owl



Photo Credit: Michael Gäbler

Introduction

In the past couple of decades, ecosystems have been increasingly at risk due to climate change and human threats. As a result, there has been a major decline in important species. One example is the snowy owl. Snowy owls breed across the Arctic tundra and travel widely searching for food. Their movements connect breeding and wintering areas across national borders, making their conservation an international challenge. As predators of lemmings and other small animals, they also help shape Arctic food webs.¹ Researchers are concerned about the effects of climate change, changing prey availability, and hazards the owls encounter outside their breeding grounds.²

Snowy owls are key to helping the tundra thrive. The tundra has icy, extreme weather conditions that are not suitable for most organisms. However, snowy owls have adapted to become one of the top predators of the ecosystem.³ Snowy owls are skilled hunters and do not have many natural predators. They typically eat small rodents, particularly mice and lemming, but can also feast on larger mammals, birds and fish.⁴

Starting in their first year of life, snowy owls begin to migrate. After breeding, snowy owls may travel widely, searching for food. Many owls go southward each winter.⁵ Once winter is over, they migrate back north. Unlike other birds, snowy owls' migration habits may change every year. As a top predator, their migration is very important to regulating food chains and preventing the overpopulation of their prey.

Unfortunately, snowy owls face a multitude of threats. Climate change causes vast habitat destruction in the tundra.⁶ Habitat destruction is when an environment is no longer a viable place to host any forms of life, mainly plants and animals.⁷ It has already impacted many other predators of the Arctic ecosystem, including polar bears, seals, and orcas. Additionally, there has been a reported increase of avian influenza outbreaks in the species.

The threats have caused the snowy owl population to move from near threatened to the more-serious vulnerable category on the

International Union for Conservation of Nature's (IUCN) red list.⁸ The red list decides how close to extinction each species is.⁹ Earlier estimates placed the global population as high as 290,000, but researchers now believe those estimates counted some wide-ranging owls more than once. A more recent estimate is 14,000–28,000 breeding-age adults worldwide; researchers separately estimate that the population declined by about 30 percent over 25–30 years.¹⁰

Many solutions have been tested to combat this crisis. For instance, organizations have used GPS mapping to track and rescue snowy owls from dangerous environments.¹¹ Still, the snowy owl population continues to decline. New technologies, solutions, and research methods are needed to protect snowy owls and the tundra as a whole.¹²

History and Description of the Issue

THE IMPORTANCE AND LOSS OF SNOWY OWLS

Scientifically known as the *Bubo scandiacus*, the snowy owl is one of the most recognizable birds in the world. It is an important species that resides primarily in and around the Arctic. During the winter, many migrate around southern



Canada, the northern United States of America, and northern Europe. This is primarily to find better food and hunting conditions. As a result of their migratory feeding habits, snowy owls are crucial to regulating the food chains in the Northern Hemisphere.

The snowy owl is an aggressive predator and at the top of the Arctic food chain. Adults have a wingspan of up to 4 to 5 feet, sharp talons, and unique long-distance vision.¹³ Unlike nocturnal owl species, snowy owls hunt through the day and night. As a result, these owls prey on many different animals. They typically eat small rodents and lemmings, with each owl eating more than 1,600 lemmings per year.¹⁴ In addition, they will consume weasels, rabbits, gulls, and even short-eared owls.¹⁵ Through hunting, snowy owls regulate the number of herbivores. This prevents the overconsumption of lichen and moss, which are important for storing carbon and filtering the air.¹⁶

Snowy owls' breeding habits are also important to the arctic food chain. Unlike other birds, snowy owls do not nest in trees. Instead, they dig holes in the mountains of the tundra to lay their eggs.

Because snowy owls are fiercely protective of their nests, other ground-nesting birds, such as ducks and geese, prefer to breed near them. As a result, snowy owls help protect nests against other predators like the arctic fox.¹⁷ Without snowy owls, arctic foxes would hunt significantly more than what is necessary to survive. A 2021 study found that foxes killed up to 90 percent of the goose eggs they encountered.¹⁸ This overhunting can lead to a population decline of prey, which has ripple effects on the overall food chain. For instance, a lack of geese to prey on could lead to a decline in the fox population as well.¹⁹

This predator-prey relationship is crucial to the overall snowy owl population. Because lemmings make up over 90 percent of the snowy owl diet, the number of snowy owls is closely related to the number of lemmings. In general, each region's lemming population varies widely from year to year. In years with many lemmings, more snowy owls can breed. In years with fewer lemmings and less food, fewer snowy owls can breed.²⁰ Any changes in the lemming population due to climate change or other threats will have impacts on the snowy owl population.²¹ Due to this relationship,

snowy owls are considered an indicator species. This means that their population can indicate the population of other species, reflecting the overall health of the Arctic ecosystem.

On a global scale, scientists have recorded a mismatch in snowy owl and lemming populations. Recent studies show that the lemming population has been mostly stable, but the snowy owl population has been declining rapidly.²² This leads researchers to believe there are unique threats to snowy owls that are not affecting lemmings. In Utqiagvik, Alaska, the Owl Research Institute counted 54 snowy owl nests in 1995. In 2006, this number dropped to 38. In 2018, there were only 7 nests, with only 4 of those viable.²³ The much lower current estimate mainly reflects better counting methods: earlier estimates may have counted owls again after they moved between breeding areas. However, researchers have also found evidence of a real population decline.²⁴ Due to this change, the snowy owls' status shifted from "least concern" to "vulnerable" on the IUCN Red List of Threatened Species in December of 2017.²⁵ In 2025, the snowy owl became regionally extinct in Sweden.²⁶

CLIMATE CHANGE CONCERNS

Climate change refers to the disruption of normal global temperatures and precipitation patterns. The tundra is particularly affected by climate change because it is characterized by extremely low temperatures and permanently frozen ground, called permafrost. Climate change's impacts on the tundra have disrupted the food chain, reproductive habits, and overall health of

snowy owls.

As discussed previously, snowy owls are heavily dependent on lemmings. Climate change negatively affects lemming populations in multiple ways. For one, lemmings tunnel under thick layers of Arctic snow to search for moss to eat. Increased temperatures from climate change have caused the "melt and freeze cycle." This is when melted snow and ice seep into the lemmings' tunnels. After the water refreezes, it traps moss in ice. This limits the food supply, causing many lemmings to die of starvation.²⁷ Additionally, warmer temperatures and permafrost thaw allow taller shrubs to grow in areas that were previously dominated by short tundra plants.²⁸ Growth of alder, dwarf birch, and willows creates a canopy that prevents the growth of moss and grass that lemmings eat.²⁹ Not only does shrubification decrease the lemming food supply, but it also reduces the open land they need to survive.

Shrubification also affects snowy owls directly. For one, tall shrubs can limit snowy owls' vision, preventing them from seeing their prey.³⁰ Additionally, increased vegetation makes owlets more vulnerable to predators. Although snowy owls are top hunters and generally not consumed by others, young owlets cannot fly. With the increase of shrubs, the grey feathers of the owlets can no longer help them camouflage with tundra snow.³¹ This makes them an easy target to other top predators, such as eagles and skuas.³² As the Arctic warms, shrubs can spread into areas of open tundra. This changes habitat used by lemmings and snowy owls, while also making it harder to predict where suitable breeding

In 2025, the snowy owl became regionally extinct in Sweden.

conditions will occur.³³

Beyond the food chain, climate change also affects snowy owls' ability to reproduce.

Due to the continuous melting of permafrost and increased precipitation, the dry tundra has developed wet layers of mud.³⁴ In these conditions, female snowy owls are unable to scrape through the ice to create their nest and lay their eggs. Even if they successfully build a nest, their nests may be destroyed from severe, heavy rain.³⁵

Snowy owls are naturally nomadic, moving between breeding areas as prey availability changes. Unpredictable changes in lemming populations and decreased breeding grounds force snowy owls to continuously migrate to find better hunting conditions. However, without enough food, the owls will not have enough energy to migrate the far distances they are otherwise capable of. Eventually, if the lemming population decreases drastically, snowy owls will starve.³⁶ Scientists already have difficulty tracking snowy owl migration patterns, and climate change is making them more erratic and variable.

As many important tundra species decrease, others can increase. Climate change can alter Arctic ecosystems in ways that affect species differently. For example, research in western Greenland suggests that warmer conditions may allow more mosquitoes to survive to adulthood and thus possibly pass along vector-borne diseases to native species.³⁷ It is clear that climate change creates a multitude of threats for snowy owls. Not only do international organizations have to work to prevent climate

change, but they must also provide ways to help snowy owls adapt to the inevitable changes that are already occurring.

HAZARDOUS THREATS

Beyond climate change, snowy owls face many hazards. Outside the breeding season, some snowy owls travel south searching for food. Open areas near airports can attract them because they resemble tundra habitat, but aircraft collisions pose a risk.³⁸ Another hazardous threat affecting the owls is human infrastructure. Owls may get caught up in power lines thinking there is a landing post. The harsh wires electrocute them, leading to their death. Other deaths are caused by owls running into fences and buildings. The combined mortality rate due to human infrastructure and vehicle collisions is estimated at roughly 30-40 percent.³⁹

The avian influenza, also known as the avian flu, is also a threat to snowy owls. It is a highly contagious virus that spreads when an animal comes into contact with an infected bird or its fluids, such as feces.⁴⁰ This disease causes animals to have respiratory distress and other internal complications. At worst, the disease can cause multi-organ failure. The disease carries a mortality rate close to 100 percent.⁴¹ This means that the wide majority of birds that contract this disease die. Snowy owls usually contract it from their prey. Since snowy owls hunt seabirds, such as gulls and shorebirds, they are very susceptible to contracting the disease.

Toxic materials are also a big concern, including

Over 40 percent of snowy owls have been exposed to toxic materials, such as rat poisons and heavy metals

heavy metals. Over 40 percent of snowy owls have been exposed to toxic materials, such as rat poisons and heavy metals.⁴² For example, mercury is a highly toxic metal present in environments and food webs as a result of human activities, such as coal-fired power plant operation. As mercury is released, it lingers in the environment for long periods of time. Mercury also stays in the food web. Other animals, such as loons, may accidentally consume mercury during their lives, and it builds up in their bodies. When the snowy owl hunts and eats them, they also consume the mercury. In aquatic environments, microorganisms can convert mercury into methylmercury, a toxic compound that can also accumulate in animals and move through food webs.⁴³ Once mercury is in the system, it is hard to excrete it. Methylmercury will then build up in the body, causing brain damage. Mercury damages brain cells required to process complex thoughts. The higher the mercury level, the less aware an animal will be of its surroundings.⁴⁴

High mercury levels may also affect owls' ability to reproduce. At high levels, mercury poisons the muscles and nerves that a female requires to lay the eggs. Additionally, a study found that

the higher mercury concentration an owl has in its body, the more likely it is to contract the avian flu. The mercury in one's body causes immunosuppression. Immunosuppression is when a body's immune system weakens and is unable to fight off diseases. The mercury specifically lowers the amount of white blood cells produced. White blood cells are what detect diseases so without them, the owl's body is unable to detect when the avian flu enters its system.⁴⁵

Another toxin is rat poisoning. Farmers use rat poisoning on their farms to control pests. However, many avian species still ingest it, including the snowy owl. The snowy owls also prey on animals that have eaten rat poison. This causes secondary poisoning. Data from project SNOWstorm, the largest research nonprofit for snowy owls, suggest that over 50 percent of tested owls contained rat poisoning in their system.⁴⁶ The rat poison also makes the owl's immune system immensely weaker. Therefore, many of these hazardous threats are what are causing the population numbers to plummet.⁴⁷

PREVIOUS CONSERVATION EFFORTS

There have been many previous regional and

A snowy owl flying on approach

Credit: Eric Kilby



national conservation efforts. Some nonprofit organizations have been especially successful. For example, Project SNOWstorm has built itself to be the largest nonprofit organization for snowy owls. It was founded in 2013 by Scott Weidensaul. The organization functions through donations and volunteers. SNOWstorm has created special GPS transmitters that owls can wear, similar to a backpack. They are fully solar-powered and fit on the bird without doing any harm.⁴⁸ SNOWstorm uses this data to log exact flight patterns, precise altitude, and locations. The birds have logged hundreds of thousands of different flights. This makes it one of the most detailed records for snowy owls that exists.⁴⁹

Using these data, researchers can track movement and connect it back to the owl's physical health. If an owl has mercury in its system, the researchers can also tie it back to the owl's migration pattern and find which area is infected by mercury. They have also created an interactive mapping platform for the public. When tagged owls come within range of cell towers, their transmitters can send location data. Project SNOWstorm shares delayed tracking maps with the public.

Separately, public donations help fund its tracking and toxicology research, including tests on owls found dead. These screenings are originally what found the rat poisoning in their systems. Increasing awareness of this issue has caused places like California to pass the California Ecosystems Protection Act, along with the Poison-Free Wildlife Act.⁵⁰ The California Ecosystems Protection Act serves as a protection against the harmful chemicals farmers use. It bans farmers and businesses from using toxic, harsh chemicals used to kill rats. This makes rats safer for the snowy owls to hunt and find good prey that will no longer be poisoned.⁵¹

The "Owl Research Institute" is another important nonprofit. This is the longest-running study on snowy owls. They have conducted research on snowy owls for over 30 consecutive years.⁵² While Project SNOWstorm has worked on

tracking technology, the Owl Research Institute specializes in researching the effects of climate change.⁵³ The founder, Denver Holt, has spent over 35 years in the tundra. He established the ties between the snowy owl population and the lemming population. He also discovered the negative impact climate change has on a female's nesting abilities. This research has immensely helped other owl research groups in understanding population decline.

The Owl Research Institute has collaborated with Project SNOWstorm, Hawk Mountain Sanctuary, and BirdLife Norway. Together, they have deployed satellite transmitters that allow them to track the owls. The transmitters make it possible to gain connectivity throughout the Tundra, where there are usually no cell signals.⁵⁴ With the use of the satellite connectivity, the Owl Research Institute also set up live nest cams. These livestreams have amassed great public awareness for the birds.⁵⁵

In Massachusetts, conservationists have worked to protect snowy owls that spend the winter near Boston. The government has collaborated with a sanctuary organization called Mass Audubon that has 43,000 acres of protected lands.⁵⁶ Mass Audubon captures snowy owls that settle at Boston Logan International Airport, then assesses and relocates them away from aircraft. Once these owls have been captured, Mass Audubon provides a health assessment. Once inspected, they are released onto the coastal Massachusetts beaches. These beaches provide them with a much safer environment where they are able to return to their natural habitat.⁵⁷ Since 1981, they have successfully captured and released 900 snowy owls.⁵⁸ This program reduces a specific danger on their wintering grounds, while broader conservation still requires cooperation across the owls' Arctic breeding and wintering ranges.

A snowy owl in captivity in Austria

Credit: GT1976



Current Status

CURRENT MONITORING EFFORTS

International conservation efforts advanced in 2026 when the Convention on Migratory Species added the snowy owl to Appendix II.⁵⁹ The listing, which took effect on June 27, recognizes the need for cooperation among countries across the owl's range. It gives those countries a framework for sharing research and coordinating conservation priorities, though the listing alone does not fund surveys or protect habitat.

An important conservation effort is monitoring. Many conservation groups focus on monitoring to track the health of snowy owl populations. These data help conservation groups plan for next steps and track the success of their efforts. The most-used tool for monitoring is tracking. This is important, because the snowy owl follows unpredictable migration patterns depending on where they can find food. Since the lemming population always has influxes in different areas, the snowy owl's migration patterns consistently change and adjust.⁶⁰

As mentioned above, Project SNOWstorm created the largest database for tracking the snowy owl's location. The data are used to access recent migration patterns and trends. In January 2025, Dr. Rebecca McCabe at Hawk Mountain Sanctuary used their data to create the first-ever global status assessment of the species' population. McCabe worked alongside the International Snowy Owl Working Group (ISOWG).⁶¹ This group consisted of 39 researchers from around the world. The goal to create a full assessment was brought to light in an ISOWG meeting in 2017 and took eight years to finally implement.⁶² To create this assessment, scientists used many different monitoring methods.

The first method was solar-powered GPS transmitters. These are lightweight and attached to hundreds of owls. These transmitters help ecologists track the owl population across places where they would not otherwise be able to reach the owls. They also used this method for nest monitoring. In July 2024, Project SNOWstorm left transmitters along various nests in Bylot Island, which lies on the top of Canada, bordering Greenland. Founding team member Jean-

François traveled across Bylot Island by foot to tag nests and tag every owl with transmitters.⁶³ These transmitters logged owl movement every five days. When an owl left to nest in a new area, biologists could see the nesting change. After attaching GPS and tags to snowy owls, analysts have noted local and landscape-level movements of snowy owls, learning more about their nocturnal hunting activity. This also helps with tracking and comparing migration patterns to previous years.⁶⁴

However, there are some drawbacks with the current technology. Although the transmitters automatically record data, researchers are responsible for finding the nests to track. This method requires a lot of time and energy. Even if researchers walk through the tundra, there are still potential nests that could be missing. Recently, Project SNOWstorm has been trying to use artificial intelligence to improve its data. Scott Weidensaul has stated how they are trying to train the artificial intelligence to go through satellite imagery to identify breeding nests on its own. However, this requires very high-resolution satellite imagery and a good artificial intelligence system. Both of these have been reportedly hard to obtain.⁶⁵ This is because satellites currently lack the high resolution needed to be able to find these owl nests. Since the tundra has extreme arctic weather, including high winds, the owl nests can be covered in satellite imagery. Moreover, the owl nests are extremely difficult to identify, as they are shallow pits of dirt scraped up by the owls.⁶⁶ With all of these issues, it is hard to train artificial intelligence to notice the patterns.

Scientists also collect DNA through blood, tissue, and feather samples from both alive and deceased owls. These samples are used to determine where each owl originates from. Their DNA is also used to show how different snowy owls are interconnected with each other. This helps analyze migration patterns. Scientists can see if owls from one region are mating with owls from another region. These data can show if a specific snowy owl population is isolated to one area. If that is the case, then that shows the environment is sufficient to allow the owls to reproduce.⁶⁷ Genetic evidence, considered alongside breeding surveys and tracking data, has helped researchers revise earlier population estimates.⁶⁸

Scientists also run toxicology screenings on these owls. Toxicology screenings measure mercury and rat poisoning levels. When high levels are measured, data analysts are able to coordinate on which areas are most affected by harmful toxins. As reported in 2024, the beaches on the northeast Atlantic coast and in metropolitan areas, such as New York City and Chicago, contained the highest rodenticide threats.⁶⁹ Snowy owls frequently hunt in these areas because of their flat land, making it easy to search for prey. By determining infected areas, snowy owl conservation groups are able to inform government agencies and plan next steps to protect the owls.⁷⁰

Using the data collected, McCabe and other scientists were able to put together their assessment. It revealed a 30 percent population decline in the past three owl generations, with each generation being 8-11 years.⁷¹ With this

It revealed a 30 percent population decline in the past three owl generations, with each generation being 8-11 years

assessment, other research groups can decide their next plans of action. Project SNOWstorm also makes tracking data available for classroom use. By following individual owls' movements, students can see how breeding and wintering areas connect across borders and why threats in either area matter for conservation.⁷² This exposure may encourage future researchers and conservationists, while also building public support for protecting the places snowy owls use.

CONTINUOUS POPULATION DECREASE IN SWEDEN

One notable snowy owl population change has been in Sweden. Sweden was historically home to many snowy owls. In the 1970s, hundreds of breeding pairs thrived in the northern Swedish mountains. After 20 years, the population began to see a decline as the lemming population cycle became irregular due to the melting tundra. In 2025, the population was classified as completely extinct, with zero nests in sight in over 10 years. Because the Scandinavian mountains were no longer able to support nests, snowy owls were unable to reproduce in Sweden and other regional, mountainous areas. Eventually, after

over a decade of being unable to reproduce, all regional owls either migrated elsewhere, or died off.

The population decline in Sweden was mainly due to climate change. Warming temperatures have resulted in changes with snow cover and texture for lemming habitats. These conditions make it more difficult for lemmings to survive through winter, and population booms have been less frequent as a result.⁷³ Once the lemming population was unable to survive the tundra's harsh winters, the snowy owl population lost a major source of prey. This generally would not be a severe problem for adult snowy owls because they can migrate and find new food. However, these adults would not be able to feed their owlets, who are unable to fly for the first two months of their lives. During this time, parents are responsible for feeding owlets by hunting and bringing food to nests.⁷⁴ However, without consistent prey in the region, the regional snowy owl population eventually went extinct.

Sweden is warming about twice as fast as the global average, largely because the northern regions experience amplified warming as the snow and ice cover declines.⁷⁵ This is part of Arctic amplification: snow and ice reflect sunlight,

Snowy owlets in their nest

Credit: USFWSAlaska



while the darker surfaces exposed as they melt absorb more sunlight and reinforce warming.⁷⁶ Sweden has over 46 million tons of carbon dioxide in its atmosphere alone, but Sweden alone has not caused the warming affecting its mountain habitats.⁷⁷ Sweden participates in EU efforts to reduce greenhouse gas emissions, but even successful emissions cuts would not immediately restore snowy owl breeding conditions.⁷⁸ Protecting the species also requires understanding changes in prey and nesting habitat across its wider Arctic range.

Sweden's government has also worked on legislation since the time of the owl's extinction in the country. The Swedish Environmental Protection Agency has added the Snowy Owl species to the Species Protection Ordinance. This act protects the species from any illegal poaching or selling. This means snowy owls are protected, deceased or living. If a deceased owl is found, it is legally required to be handed to the Swedish government.⁷⁹

IMPORTANCE OF THE SNOWY OWL IN CANADA

Snowy owls play a vital role in Canadian ecosystems. The tundra is home to not only snowy owls but also the Inuit community. In the Inuit culture, these animals are believed to be spirit guides. As members of the Inuit community pass, it is believed that the owl is set to be a wise guardian who helps the deceased travel to the afterlife safely. The Inuits also value their return from migration. When the snowy owl returns from the south, the Inuit celebrate the end of winter and the beginning of spring. Inuit communities cherished art of the creature, carving sculptures of ivory, soapstone, and other materials.⁸⁰

Local Inuit members have taken it upon themselves to head the charge in protecting the snowy owl through conservation projects. Inuit elders have summoned their communities to create the Nunatsiavut Mapping Project. This has hunters map the locations of disappearing

nests as they walk through the tundra.⁸¹ The data collected is assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and then put directly into the Government of Canada's Changing Climate Assessment Reports.⁸² This is important because it brings traditional knowledge together with government policy and action. It serves as a connecting link between groups sharing the same goal. The reports showed that the number of nests was depleting much faster than anticipated.⁸³ This encourages even more urgent action. After the success of the Inuit's data collection, Canada began to combine their discovery method with satellite tracking. Both are used as resources to cross-reference the other's tracking data.⁸⁴

Snowy owls also help Canada gain revenue during cold winter months when smaller cities would generally not be very busy. As snowy owls make their way to the flatter lands of Southern Canada during the winter, bird watchers and wildlife photographers flood the streets of these areas. While the smaller, rural areas of Canada are generally not a hub for tourists, the snowy owl's arrival becomes a reason for people to gather: just to see the bird take flight. According to the COSEWIC 2025 evaluation, the snowy owl holds great economic significance for Canada due to the tourism and bird watching it brings.⁸⁵ Bird watching alone has generated USD 2.4 billion in 2024, and is projected to reach USD 3.7 billion by 2030.⁸⁶

For many bird watchers, the snowy owl is held as one of the most coveted birds to see.⁸⁷ When accounting for the economic gain coming from both bird watchers and wildlife photographers, the magnitude of monetary value is even greater. The Canadian Parks and Wilderness Society assessed that ecotourism driven by avian tourists contributed to 1.6 percent of total rural GDP across Canada.⁸⁸ With that in mind, the decrease in snowy owl population has the potential to greatly impact the Canadian economy, especially in rural areas.

Bloc Analysis

POINTS OF DIVISION

While many countries share the desire to see snowy owls thrive, the countries within CMS will have different ideas on how to accomplish species protection. Contrasting economic and infrastructure capacities, as well as other competing priorities, will determine what exactly a country might promote. Specifically, a major debate will be the financing of initiatives and technologies to monitor the scope of the problem. As these efforts can be costly and time-consuming, the separate blocs will have various approaches on how much capital should be allocated to research and data collection, and where the funds should come from. For example, delegates could debate whether countries with larger research budgets should fund shared surveys and tracking equipment in countries that lack those resources. Complicating this debate is that some especially hard hit Arctic countries are facing major ecosystem challenges as a result of climate change they did not primarily contribute to.

Additionally, countries will find disagreements related to how the data should be shared. As the snowy owl crosses borders, some countries will argue that data should, too. Some might wish for this collaboration to be compulsory, and others prefer it voluntary, with planning decisions based on the evidence up to each individual country. Acting on the available data is a third point of division. One bloc may take more preventative and wide-sweeping measures to limit human encroachment and anthropogenic environmental effects, whereas other states may support only narrow, specific protections based on concrete data. Lastly, states might also disagree on the main focus of preventing snowy owl death and disease, like limiting harmful chemicals or implementing safe removal programs.

A country does not need to have snowy owls within its borders to support ambitious CMS

action. Delegates should consider their country's broader approach to migratory species, willingness to share conservation costs, and priorities for international cooperation. Countries outside the snowy owl's range might join any of these blocs, even though Arctic range countries would carry out most surveys and habitat measures.

HIGH CONSERVATION EFFORT FOCUS

These countries heavily advocate for the conservation of migratory species. This may be through legislation or policymaking that emphasizes protection of wildlife. States with strong legal frameworks to protect endangered species may have laws that range from anti-poaching to habitat conservation. "Poaching" refers to the illegal hunting or taking of wild animals.⁸⁹ Illegal killing of snowy owls historically occurred in some parts of the world, so anti-poaching laws are relevant in this committee but also demonstrate which states are eager to create a barrier between hunters and endangered species.⁹⁰

Therefore, the countries of this bloc would reasonably also support protecting the physical Arctic breeding habitat, funding regular nest and population surveys, and sharing tracking data among countries where the owls travel. They may also call for stronger action against threats along wintering routes, including rodenticides and collisions with human infrastructure. Their priority is to set common conservation goals and measure whether countries are meeting them. This bloc might propose a shared schedule for population surveys and regular reports on breeding sites, wintering hazards, and progress toward conservation goals.

Other common laws are habitat conservation laws. These laws try to protect the environment where the animals reside. Depending on the area's rules, habitat protections can limit development, disturbance near nests, or activities that damage the land. For example, Aulavik



A juvenile owl in Canada

Credit: Peter K Burian

National Park in Canada's Northwest Territories protects Arctic tundra habitat used by snowy owls. Parks Canada identifies snowy owls among the park's birds of prey and notes that their numbers vary with the availability of lemmings, their prey. This shows how protecting habitat can also help conserve the wider ecosystem on which snowy owls depend.⁹¹ Countries that might not have snowy owls but promote similar protected zones for species conservation will align with this bloc. By enforcing these laws, these countries work toward protecting threatened species.

BALANCED ECONOMIC AND ENVIRONMENTAL GAIN

Countries in this bloc support snowy owl conservation while seeking measures that can work alongside existing land use and infrastructure. For example, they may favor identifying important breeding and wintering sites before placing new infrastructure, or reducing hazards at sites where tracked owls regularly gather.⁹² However, they would be more likely to hesitate to interrupt already-functioning projects contributing to the economy, like with relocating

birds in the United States gathering at Boston's Logan Airport.⁹³ These countries may support sharing tracking data, while allowing each country to decide how to use it in local planning. Their main question is how to reduce risks to owls without requiring the same restrictions in every location.

Countries may also differ over how conservation rules should account for Indigenous rights and traditional practices. Any proposed restrictions on taking snowy owls would need to consider the laws and communities in each country while still addressing poaching. These states might favor rules developed with Indigenous communities that distinguish lawful traditional practices from illegal commercial collection.

Snowy owls can still contribute to local economies, even without invasive trophy hunting or collecting. Ecotourism is a popular solution that builds economies while protecting ecosystems. By visiting these nature reserves, tourists can gain a deeper understanding of the ecosystems and their importance. The practice of ecotourism also creates new job opportunities which can positively stimulate the economy.⁹⁴ By

finding opportunities that stimulate the economy, while protecting the environment, states are able to help endangered species without hurting or losing anything.

LOW CONSERVATION FOCUS

This bloc represents countries that would favor limited, targeted commitments until the costs and benefits of additional snowy owl protections are clearer. For snowy owls, these countries may hesitate to commit to extensive Arctic surveys or new restrictions on land use without funding and technical support. They may prefer voluntary data sharing and conservation measures targeted at locations where research shows a clear risk to owls.

In some cases, countries may not have the financial resources to enforce strict laws protecting migratory species. Satellite tracking and testing require equipment and trained staff, which countries with limited wildlife budgets may struggle to fund.⁹⁵ Countries with limited conservation budgets may therefore seek shared research programs or international funding before committing to regular monitoring. This bloc might suggest starting with a small number of priority survey sites and expanding monitoring only when funding and staff become available.

A country such as Libya, which faces gaps in protected-area capacity and lies outside the snowy owl's range, might favor concentrating its limited resources on species within its own region while supporting voluntary, externally funded Arctic research.⁹⁶ In resource-strapped countries facing other crises, the priorities of some of these bloc members will look different from the other blocs.

Committee Mission

The Convention on Migratory Species (CMS) is a treaty under the United Nations Environment Programme (UNEP). It was signed in 1979 by

22 countries. These countries agreed to work toward the protection of migratory species across their shared international borders. As the environment continues to rapidly change, many important species begin to die out before they can adapt to increasing pressures. CMS is working to aid the population decline of endangered species that play key roles in their surrounding ecosystems. The snowy owl was added to CMS Appendix II in 2026.⁹⁷

CMS has highlighted the snowy owl as an indicator of Arctic tundra health. Protecting it can draw attention to changes in an ecosystem that supports migratory species traveling far beyond the Arctic.⁹⁸ The health of the Arctic matters beyond the region. Many migratory birds breed there and spend other parts of the year in different countries. Changes to Arctic habitats and food webs can therefore affect species and communities across many international borders.⁹⁹

Delegates should consider how countries can share monitoring data, identify important breeding and wintering areas, and reduce threats that occur along snowy owls' movements. They should also decide who will fund research in remote Arctic areas and how governments can use its findings. CMS can encourage cooperation and common conservation priorities, while implementation depends on action by countries and their partners.

CMS focuses on various aspects of the issue. In past resolution papers, CMS prioritized working with NGOs related to the endangered species. CMS and the African-Eurasian Migratory Waterbird Agreement launched World Migratory Bird Day in 2006 to raise awareness of migratory birds and the need for international cooperation.¹⁰⁰ This day highlights the importance of migratory birds and brings awareness to those who are unfamiliar with the issues endangerment presents.

TOPIC B

Protecting Cheetah Populations

CMS | NHSMUN 2027



Photo Credit: Benjamin Gamblin

Introduction

With the rapid development of the African continent, cheetah conservation has become an urgent crisis. Cheetahs face declining numbers, shrinking habitats, and increasingly isolated populations. Currently, the global population now consists of an estimated 6,500 mature cheetahs distributed across 33 subpopulations.

Even more concerning, only two of these subpopulations contain more than 1,000 individuals, while roughly two-thirds contain fewer than 100.¹⁰¹ This uneven distribution leaves smaller cheetah populations especially vulnerable to habitat loss and environmental change. For example, when a small population loses habitat, it also loses access to food and breeding opportunities, thus affecting its long-term survival.

Currently, the largest threat to cheetah populations is habitat loss. Cheetahs now occupy approximately nine percent of their historical range.¹⁰² About 77 percent of their remaining habitats sit outside protected wildlife areas in Africa.¹⁰³ As a result, establishing policy to protect cheetahs becomes difficult across both public and private lands. Restoring cheetah populations depends on managing several pressures at once. These include livestock conflict, rural growth, and road development. Today, Southern Africa holds the largest share of the world's remaining cheetahs. About 4,300 cheetahs live in the region.¹⁰⁴ This area is across parts of Botswana, Namibia, Zimbabwe, and South Africa. Covering about 1.6 million square kilometers of suitable habitat, this region shows both the needed scale of conservation efforts and the difficulty of enforcement when human land use continues to expand.¹⁰⁵

Illegal trade places even more strain upon already struggling cheetah populations. This threat is apparent in the Horn of Africa, where fewer than 500 adult and adolescent cheetahs remain in the wild due to illegal trade practices. Due to poaching and wildlife trafficking in the exotic pet trade, up to 300 cheetah cubs are taken from the wild each year.¹⁰⁶ Between 2010 and 2019, researchers recorded 1,884 cases of illegal cheetah trade across 56 countries. In total, these cases involved nearly 4,000 cheetahs, cheetah

parts, or cheetah products.¹⁰⁷ Wildlife trafficking is a cross-border issue that connects source states, transit routes, and destination markets. Many remaining cheetah habitats stretch across international borders, so their survival depends on international cooperation as well as domestic enforcement.¹⁰⁸

Effective cheetah conservation requires addressing these habitat and population threats with in-depth policy. Protecting habitat corridors, regulating trafficking, and improving awareness all depend on international coordination to succeed. Together, these issues show why cheetah conservation requires a broad and coordinated approach.

History and Description of the Issue

DIRECT THREATS TO CHEETAH POPULATIONS

Before 1900, the global population of cheetahs was over 100,000. They lived in the majority of Africa, as well as portions of Asia and the Middle East.¹⁰⁹ However, cheetahs have become extinct in over 20 countries since then. According to the World Wildlife Fund, fewer than 7,000 cheetahs

remain, which is an over 93 percent decline in the overall population.¹¹⁰ Alongside the shrinking populations, cheetahs now live in far fewer places than they did a century ago. This change in geographical area is known as a “contraction.”

Cheetah populations face a number of significant direct threats. Hunting is a large danger to the already-dwindling cheetah populations. Two main forms of cheetah hunting are relevant: hunting for sport and retaliatory hunting.¹¹¹ Hunting cheetahs for sport has been a consistent activity throughout history, dating as far back as 1300 BCE.¹¹² More recently, the British government heavily rewarded and revered cheetah hunting in the 1800s and 1900s. Trophy hunting was especially prominent under British rule in colonial India. By the mid 20th century, it led to the total extinction of Asiatic Cheetahs in India.¹¹³

While hunting cheetahs for sport has been largely deemed illegal, some exceptions exist. For example, Botswana, Namibia, and Zimbabwe set a number of cheetahs per year that are allowed to be exported (5–150 per year) alive or as hunting trophies.¹¹⁴ This exception is controversial, but supporters argue that regulated hunting could give landowners a financial reason to tolerate cheetahs on their property. Farmers may otherwise bear the costs of protecting livestock from predators without receiving a direct benefit from keeping cheetahs nearby. If hunting fees reach landowners and conservation is carefully monitored, supporters argue that they may be more willing to maintain habitat and protect cheetahs over the long term. This raises an important question: how can countries balance the economic impact and

overall feasibility of protective laws with the goal of protecting the few cheetahs that are left?

Since there are many laws against hunting cheetahs, killing for sport is relatively uncommon across the world. However, there are still retaliatory killings. Retaliatory killings are those that occur to protect livestock and farm animals from cheetah attacks. A case study conducted in Ethiopia and Kenya found that 60 percent of surveyed farmers reported a cheetah attack in the past year, and 80 percent felt it was acceptable to kill a cheetah if it attacked their livestock.¹¹⁵ Critics of retaliatory killings argue that the perception of cheetahs hunting livestock does not always match the reality. Unless farmers have directly seen a cheetah hunting, they cannot be sure that a cheetah was responsible for killing livestock. Other predators may also live in areas where cheetahs are known to live, but livestock deaths may be unfairly blamed on cheetahs.¹¹⁶

In Namibia, a majority of cheetah habitat overlaps with areas where people live, mainly in private farmland and property. As a result, there are many more interactions between cheetahs and humans, causing a higher chance of conflict and retaliatory killings.¹¹⁷ However, only about six percent of the average cheetah diet comes from livestock, so it is highly unlikely that many livestock deaths are due to cheetahs.¹¹⁸ Even so, retaliatory killings and other forms of human-wildlife conflict have been responsible for the massive decline in cheetah populations over the past century.¹¹⁹

Another important component is the capture and trafficking of cheetahs. Even though many of

80 percent felt it was acceptable to kill a cheetah if it attacked their livestock

A juvenile cheetah at Pardisan Park in Iran

Credit: Azadeh Torkaman



these cheetahs are not directly killed, trafficking is still a major threat to cheetah populations. The largest demand for cheetahs and cheetah cubs can be seen in the Middle East.¹²⁰ From 2010 to 2019, more than 1,884 incidents were documented, with over 4,000 cheetahs or cheetah body parts being trafficked. These are only the known cases, and it is very likely that there are many more incidents that have not been discovered.¹²¹ Cheetah cubs are mainly trafficked due to the status associated with owning wild cheetahs and other animals being viewed as rare and exotic.

Cubs are particularly vulnerable because they are easier to transport and raise. This directly poses a threat to the longevity of cheetah populations. Somaliland has been the hub of trafficking cheetahs to the Arabian Peninsula.¹²² This is partly due to its wide and expansive geography, as well as international uncertainty regarding the status of Somaliland. This allows traffickers to exploit gaps in the enforcement of protective laws.¹²³

Even when captured cheetahs are kept alive, this still harms the overall population. Cheetahs kept

in captivity can no longer reproduce in the wild, meaning wild populations will struggle to grow or then shrink even faster. This also harms the environment, since cheetahs serve an important role in their ecosystems. Cheetahs help regulate prey populations, and the remains of their kills provide food for scavengers.¹²⁴

Not all direct human-caused killing of cheetahs is intentional. Cheetahs may be killed in vehicle accidents, caught in traps meant for other wildlife, or exposed to poison meant for other predators.¹²⁵ Although these threats receive less attention than the more intentional acts, they still continue to reduce the already small population of cheetahs. Additionally, preventing cheetah deaths is critical, but it alone is not enough to restore cheetah populations. Cheetah habitats are under threat as a result of pollution and the effects of climate change. While direct threats are easier to trace, indirect threats play an immense role in the future of cheetah populations.

INDIRECT THREATS TO CHEETAH POPULATIONS

While direct threats harm individual cheetahs, indirect threats impact and change the environmental conditions that are needed for cheetahs to survive. Habitat loss, climate change, prey depletion, fragmentation, and range contraction are all significant indirect threats that threaten the future of cheetah populations.¹²⁶

Habitat loss is one of the largest threats to cheetah populations. There are many causes of habitat loss. Agricultural expansion, especially in regions where farming as a source of revenue has increased, has often cut directly into habitat space for cheetahs.¹²⁷ Agricultural development may lead to retaliatory killings, driving prey away, cutting larger habitat areas into pieces and separate populations, or removing sufficient cover for hunting and resting. More importantly, human settlement can directly lead to the loss of land previously inhabited by cheetahs. For many humans, protecting land meant for cheetahs comes at the cost of food production, housing, or energy. As such, critics of habitat protection argue that it is simply not economically feasible to value animals over economic development.¹²⁸

A core part of habitat strength is the presence of prey. Cheetahs typically prey on small or medium mammals like gazelles and hares, though this varies by region. However, just as the habitats of cheetahs have been impacted, so too have those of their prey. Human hunting is even more prevalent here because many animals that cheetahs prey on are not protected species. A decrease in availability of prey thus makes it difficult for cheetahs to thrive, and it can also lead them to graze on livestock or to enter unsafe areas, putting them at a higher risk of retaliatory killing.

Climate change has been a large driver of both prey depletion and land degradation. Droughts have heavily changed the landscape of habitats across Africa, with reports citing that global warming in Africa is approaching 3 degrees Celsius over the past 50 years, heavily impacting wildlife across the continent.¹²⁹ According to the Intergovernmental Panel on Climate Change (IPCC), the productivity of rangeland, or how much vegetation and grass are produced in a given area, is expected to decline by 37 percent by 2050.¹³⁰ While cheetahs do not consume plants and grasses, their prey do. Ecosystems are incredibly intertwined. As the prey of



A cheetah being observed by tourists in Maasai Mara, Kenya

Credit: Nina R

cheetahs face food scarcity, their populations will decrease over time, leading to consequences for cheetahs.¹³¹

Similar to development, habitat fragmentation has posed a large threat to cheetahs. Habitat fragmentation occurs when human development, such as roads, cuts through a habitat.¹³² Cheetah populations require large areas of land to hunt, meaning their population density is low.¹³³ Furthermore, connected habitat allowed a greater pool for cheetahs to reproduce with. Similar to range contraction, fragmentation puts each population cluster at higher risk of extinction from disease, climate change, hunting, or any other threat that impacts a majority of the cluster.

Fragmentation also limits gene flow between cheetah populations. Gene flow occurs when animals from different population clusters intermix. This allows more genetic material and diversity to move between groups. This also allows more traits that are critical for stronger species to be passed on, often increasing their chances of survival. However, when species are isolated, the number of mates gets smaller and leads to lower genetic diversity.¹³⁴

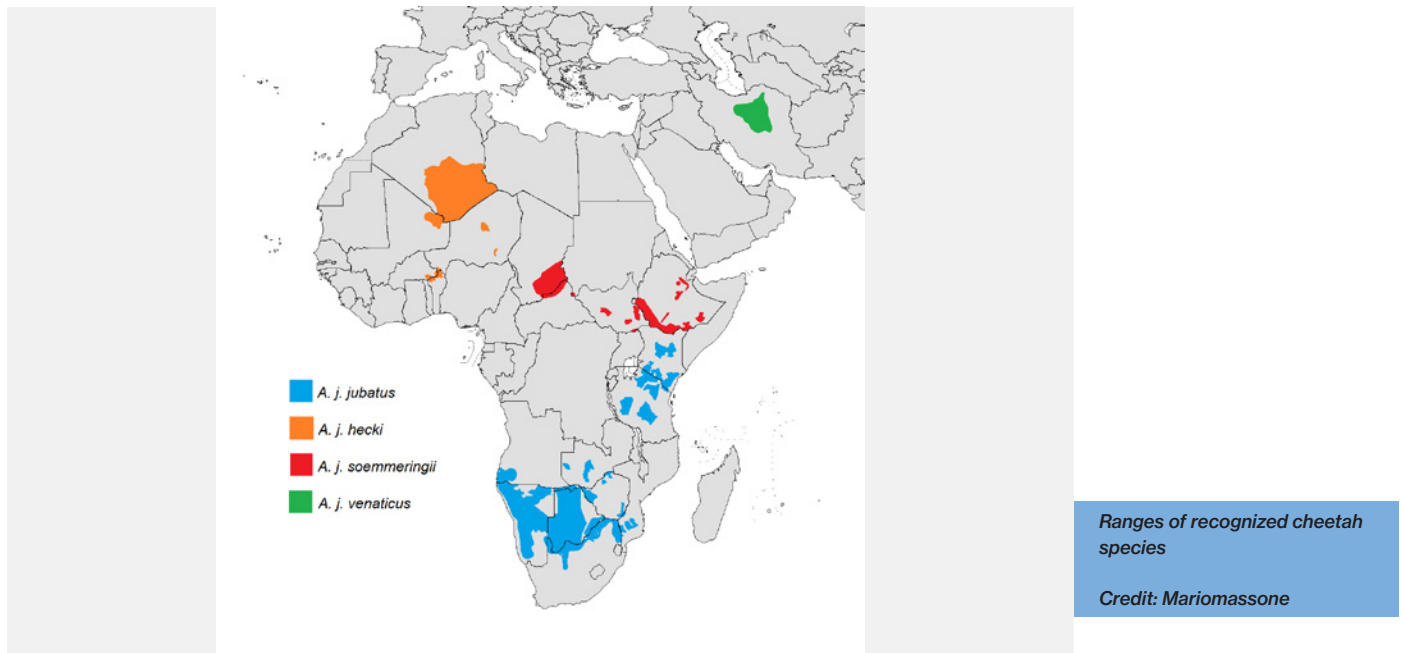
All of these factors have led to significant range contraction for cheetah populations around the world. While population decline means that there are fewer cheetahs overall, range contraction means that there are fewer places containing cheetahs.¹³⁵ These two metrics are correlated, but they have distinct causes and impacts. The main reason for recent range contraction was that the land which once supported cheetahs was developed for human use.¹³⁶ Range contraction is dangerous because it means remaining cheetah populations are forced into a small group of locations. If a natural disaster, disease, or policy shift affects one of the remaining areas of cheetahs, it becomes increasingly unlikely that the population will recover.

Indirect threats are especially relevant due to

the frequency and range of cheetah movement. Cheetahs do not stay within protected areas and frequently wander across international boundaries.¹³⁷ Protected areas can preserve important cheetah habitats, but they cannot address indirect threats fully. Cheetahs naturally require large territories and will frequently move beyond protected areas to find prey and mates. Cheetah populations may easily wander or depend on land that has no conservation status, is home to livestock, or is inhabited by humans. As a result, current standards are not enough to completely protect cheetahs. Viable populations require protecting sufficient habitat, prey, and connections between cheetah populations across both human-used landscapes and national borders. These challenges have pushed cheetah conservation increasingly toward coordinated national and international approaches.

EVOLUTION OF NATIONAL AND INTERNATIONAL CHEETAH CONSERVATION

Throughout history, cheetahs were seen as a symbol of wealth and power when hunting. Their rarity and strength have led many to view them as exotic, prized trophies.¹³⁸ Ancient Egypt is one of the earliest examples of the status associated with cheetahs; this was documented on ancient tomb paintings and carvings.¹³⁹ Another clear example of this can be seen in British-controlled India. Cheetahs were once spread across much of India, covering most of the subcontinent. An interesting note is that Indian rulers did not always kill wild cheetahs but sometimes captured and trained them. This can be traced to the 16th century under Emperor Akbar, who was recorded as holding over 1,000 cheetahs at one point. By the British colonial era, cheetah populations had already begun to strain under the weight of captivity. However, they were further impacted by bounty and sport hunting in the region. By 1952, cheetahs were considered extinct in India, and thus a majority of the Asian range.¹⁴⁰



The extinction of cheetahs in India was not an isolated event. Across their historical range, cheetah populations have experienced similar pressures due to hunting, capture, and human settlement. Cheetahs continue to disappear from numerous countries; their populations across the world are contracting and declining. By the mid 20th century, the conversation was no longer about maintaining cheetah populations or helping them spread. Instead, it was about preventing them from becoming extinct entirely.¹⁴¹

Around this time, some African states began to adopt policies surrounding the protection of wildlife. Restrictions on hunting, reserves, and permits for wildlife killing and capture began to spread across Africa and other regions with cheetah populations and other wild animals. Kenya, Uganda, and South Africa have all passed ordinances to protect the animals.¹⁴² However, cheetahs are not confined to national borders. As such, it became clear that any law or ordinance targeted at wildlife requires international collaboration to effectively serve its purpose.

In 1968, the African Convention on the Conservation of Nature and Natural Resources

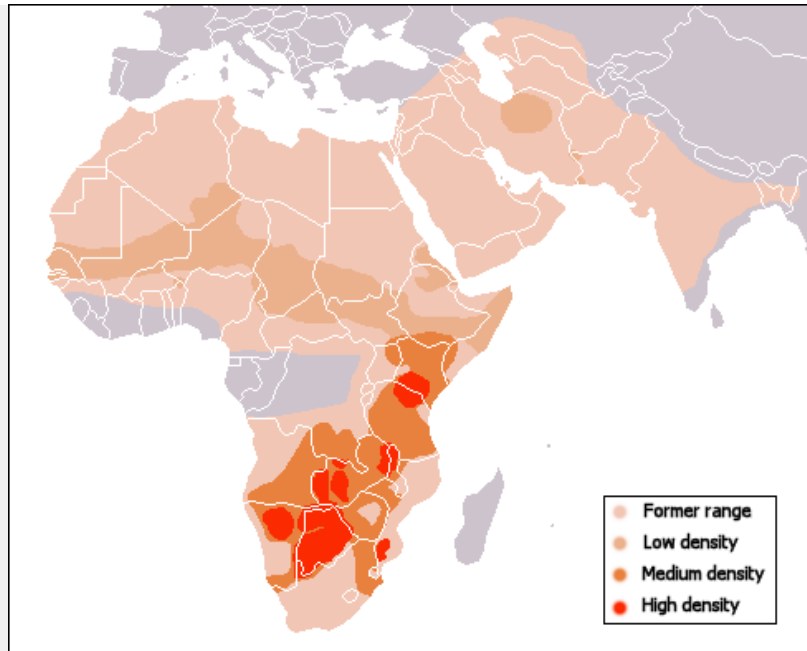
(the Algiers Convention) was adopted by the Organization of African Unity (OAU).¹⁴³ It attempted to establish wildlife conservation as a shared responsibility among all member states. It discussed threatened species, regulation of killing, resource management, and international cooperation. However, the Convention did not mandate international action. Rather, it required signatory countries to agree to take parallel actions within their own countries.¹⁴⁴

The first action that truly focused on coordinated international action was the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which was signed in 1973 and enacted in 1975.¹⁴⁵ While the Algiers Convention focused on domestic policies, CITES worked to institute and strengthen collaboration across borders to protect animals and plants across national lines. By this point, cheetahs were being traded as hunting trophies, skins, and as live pets.

CITES operates by placing plants and animals into different classes. Appendix I, which included cheetahs, held the strongest trade restrictions.¹⁴⁶ This class was reserved for species threatened

Historical range of cheetah species

Credit: Al Pereira



with extinction and generally banned trade with few exceptions. Appendix II is for species that can be traded with regulations, and Appendix III was used for those with minimal controls on trade. While CITES was strong in creating international legal frameworks, there are still loopholes in its guidelines, and it took little concrete action to address direct threats. Rather, it created room for countries to collaborate and create frameworks to prevent illegal and dangerous trafficking. Furthermore, while trafficking is the primary concern of CITES, cheetahs are continually threatened by habitat loss, fragmentation, retaliatory killing, and climate pressures.¹⁴⁷

The last large change to international policy affecting both cheetahs and other species can be seen with the Convention on the Conservation of Migratory Species of Wild Animals (CMS), which was ratified in 1979.¹⁴⁸ While CITES focused on the trade of species, CMS specifically broadly introduced conservation efforts upon its ratification in 1983.

By the 2000s, broader regional efforts began to focus on cheetah populations. Eastern and

Southern Africa particularly expanded population monitoring, habitat connectivity, and managing human-wildlife conflict. While this was led by regional powers, CMS played a large role in focusing efforts. This also demonstrated a clear shift to an understanding about the connected nature of cheetah populations across borders.

In 2009, cheetahs were specifically added to Appendix I of CMS, indicating the urgency associated with protecting them.¹⁴⁹ At this point, specific goals were added to make this possible, including maintaining ecological corridors, reducing livestock conflict, restoring prey, and limiting the disruptions of human settlements through cheetah habitats. In 2017, CMS and CITES began to work together by establishing the Joint CITES-CMS African Carnivores Initiative (ACI), which focused on cheetahs, lions, leopards, and the African wild dog.¹⁵⁰ The ACI was a clear step to holistically address the pressing issues that impact conservation policy.

While CMS and CITES introduced important guidelines and examples of effective policies, they still depend heavily on national implementation. Enforcement budgets and

capacity to carry out efforts differ heavily between states. Cheetahs continue to near extinction as habitat destruction gets worse each year and traffickers find loopholes in enforcement. Furthermore, it is simply not feasible for all land to be protected, meaning cheetahs and other species will always face risk. As such, countries must decide the balance of protection and allow farmers and other landowners open use of their land.

Protecting individual cheetahs is not sufficient. Maintaining viable populations requires protecting the interconnected species as a whole. International agreements will continue to depend on willingness, resources, and capacity of states to implement reforms and treaties.

SOUTHERN AFRICA CHEETAH CONSERVATION

Southern Africa, specifically Namibia, Botswana, South Africa, and Zimbabwe, holds the largest remaining concentration of wild cheetahs.¹⁵¹

Across this region, cheetahs have been found to roam over 780,000 square kilometers of land.¹⁵² However, nearly 77 percent of cheetahs in Africa live outside formally protected areas.¹⁵³ These cheetahs live and travel across international borders, and often do so on private property and unprotected land.

Political borders do not correspond to cheetah ecological ranges, and it is often hard to predict cheetah movements within their habitats. Geographically, cheetahs cross many of the borders that divide Namibia, Botswana,

Zimbabwe, and South Africa.¹⁵⁴ Cheetahs moving through these landscapes cross through national parks, protected areas, private farms, communal land, and general forests. These areas can be considered wildlife corridors, or smaller areas of habitat that connect larger habitat blocks.¹⁵⁵ Corridors are crucial in connecting larger cheetah habitats while also allowing access to prey and mating between populations. However, damage or fragmentation to any of the corridors in Southern Africa has the potential to cause a large divide and disrupt this highly interconnected area.¹⁵⁶

One study of South Africa's northern border found that from 2023 to 2026, over 20 percent of the individually identified cheetahs in this area died or were killed.¹⁵⁷ Because the population was already small and these were breeding-age adults, the researchers warned that such losses could slow its recovery. Many of these cheetahs were killed as a result of retaliatory killing. Furthermore, greater levels of human activity have caused severe fragmentation in the region, putting the remaining cheetahs at greater risk. The international nature of this area highlights the importance of aligned policy as it comes to conservation. Conservation measures or reforms in one of the countries hold no bearing on the other. Rules differ on fencing, land development, livestock predation, and more. These laws, however, impact the same cheetah populations. Additionally, conservation is especially dependent on both cross-border collaboration and cooperation from private landowners.

The connection between Namibia and Botswana is one of the most important connections for

However, nearly 77 percent of cheetahs in Africa live outside formally protected areas

cheetah habitats in Southern Africa.¹⁵⁸ However, most of the usable habitat is not within national parks or protected lands. A substantial amount of the land used by cheetahs overlaps with farmland, livestock ranches, and other human-inhabited areas. Cheetahs regularly encounter livestock, farmers, roads, and settlements while moving through ranges.¹⁵⁹ While the land is protected in some areas, cheetahs must still coexist with humans in order to survive. However, farmers lose money when their livestock are killed, and even though many killings cannot be verifiably attributed to cheetahs, they are often blamed. The benefits of cheetah conservation are negligible for farmers, and offer little economic benefit compared to the potential cost. The international community benefits as a whole from conserving cheetahs, but individual landowners and livestock owners bear the brunt of the cost of living alongside cheetah habitats.¹⁶⁰ This committee must strike a balance and find ways to benefit the international community at large without disregarding the interests of their people.

The overlap between cheetah habitat and private property has also led conservation efforts to prioritize conversations with farmers and local communities. Retaliatory killings continue to be one of the largest, most-immediate threats to cheetahs in Southern Africa. Unclear policies and ineffective legislation banning retaliatory killings have done little to curb this problem.¹⁶¹ However, the emphasis on coexistence strategies has led to some solutions, including guard dogs for livestock, enclosures for vulnerable livestock, vigilant herding, and warning systems. Furthermore, education on the differences between unconfirmed and actual predation has worked to inform farmers about the risks of blaming livestock deaths on cheetahs.

Namibia's Predator Early Warning System (EWS) shows what successful implementation can currently achieve. This initiative involved placing GPS tracking collars on cheetahs and sharing location data with farms, warning farmers if cheetahs get close to their farms. This system both helps farmers and protects cheetahs, and

has already been proven effective. On April 10, 2025, one farm reported the loss of several goats and claimed that multiple cheetahs were seen in the area, including one with a collar. However, the EWS data showed that none of the collared cheetahs were near the farm when the loss occurred. The location data prevented the cheetahs from being killed based on an incorrect accusation. By the end of 2025, the system had contacted over 300 farms.¹⁶² However, development and use of conservation technology cost money, and governments have limited conservation budgets. It is important to find ways for different institutions, from governments to NGOs, to share costs to keep development moving forward.

Another important effort was the Regional Conservation Strategy for the Cheetah and African Wild Dog in Southern Africa. This strategy was developed in 2007 and updated in 2015 to unite cheetah conservation efforts in Southern Africa.¹⁶³ The strategy treated the collection of involved countries as a region, as opposed to being separate. This created regional strategies that viewed the needs of Southern Africa as a whole, as well as national action plans to ensure that each individual government could effectively contribute. It heavily prioritized identification of transboundary populations and corridors. This program has had some success in uncovering more information about cheetah populations and trends. However, specific action to meet its guidelines has had limited success so far.¹⁶⁴ This effort is proof that international efforts can help facilitate cooperation, but stronger mechanisms are needed to ensure that their recommendations are carried out. It is important to weigh national sovereignty against the need for accountability in international efforts.

Southern Africa remains the global stronghold of cheetah populations. Governments continue to consider transboundary cheetah populations, work with farmers, and share information across borders. However, challenges continue to persist. Human development continues to expand into cheetah habitats and interfere with

their survival. Roads fragment ranges, monitoring is not standard, and policies are inconsistent across countries. The current state of the CMS is dire, as cheetahs continue to face the threat of extinction. Cheetah populations in South Africa demonstrate that organized efforts have the potential to be successful, but will require continued dedication and reform.

Current Status

CURRENT CONSERVATION AND POPULATION RECOVERY EFFORTS

Today, many countries have taken further steps beyond habitat protection laws and broader promises. Several active recovery programs are now playing essential roles in helping cheetah population recovery efforts. These efforts have included moving cheetahs between countries, monitoring breeding, expanding populations into new locations, and strengthening international protection. This has produced real results in India, Eswatini, Zimbabwe, and Iran. However, most programs still rely on continued human management, international funding, and

cooperation between several governments. This means that the current status of cheetahs must be measured by both the progress already made and whether these efforts can remain successful over time.

India's Project Cheetah is one of the largest current examples of international population recovery. The program began with 20 cheetahs transferred from Namibia and South Africa to Kuno National Park. In February 2026, another nine cheetahs, six female and three male, arrived from Botswana. By May 2026, India reported a total of 53 cheetahs, with 33 born within the country.¹⁶⁵ These numbers show that after being transferred to new locations, cheetahs are still able to reproduce in their new conditions. This is important because it means that similar strategies could be used to successfully rebuild populations in other locations, as well. They also show how cooperation between India, Botswana, Namibia, and South Africa has created a new cheetah population where the species had previously disappeared.

However, Project Cheetah still heavily depends on international support. India's government reports that continued cheetah transfers from African countries may be needed to improve



A cheetah receiving a medical checkup

Credit: Wildspiritfoundation

genetic diversity and support population growth. Kuno National Park remains the main location, but Gandhi Sagar Wildlife Sanctuary has also been prepared for expansion. Additional work is underway in the Banni grasslands and Nauradehi Wildlife Sanctuary.¹⁶⁶ Expanding the project into several locations may reduce dependence on one park. At the same time, it will require more veterinary teams, prey surveys, trained staff, and communication between state governments. In short, Project Cheetah shows how countries with existing cheetah populations can contribute to international recovery. However, future transfers must remain carefully managed so that supporting foreign programs does not harm conservation efforts within the origin countries.

Eswatini provides another clear example of current population recovery efforts. Between December 2025 and April 2026, two female and two male cheetahs were moved from South Africa into the Royal Jozini Private Game Reserve in Eswatini. This marked the return of cheetahs to Eswatini after an absence of more than 35 years. Current monitoring shows that the females are hunting successfully, while the males are exploring nearby areas.¹⁶⁷ All four animals are being monitored through satellite tracking and radio tags, as well as field observations.¹⁶⁸ This is a highly positive result because these animals are adjusting well and have now formed a founder population, the first group used to rebuild a population in an area. This project is part of the Southern African cheetah metapopulation program, which coordinates movement between reserves and countries.¹⁶⁹ In order for the program to succeed long-term, the cheetahs will need to successfully reproduce, and future transfers will be necessary to introduce genetic diversity into the population, making it more likely to survive. Eswatini's current success, therefore, depends on cooperation with South Africa and other countries managing the wider regional population.

International legal protection also changed during 2026. At CMS COP15 in March 2026, parties agreed to add Zimbabwe's cheetah population

to Appendix I and II; the change entered into force on June 27, 2026.¹⁷⁰ Before this decision, the population was only in Appendix II, but the new classification recognizes that Zimbabwe's population now requires stronger protection and international support. CMS currently lists the Zimbabwe population under both appendices, while Botswana and Namibia remain only in Appendix II.¹⁷¹ Appendix I creates stronger responsibilities for populations threatened with extinction, while Appendix II applies to populations whose conservation requires cooperation between countries. A population may be listed under both appendices when both levels of action are needed.¹⁷²

This change provides Zimbabwe with stronger international support, but it does not automatically improve conditions inside the country. The government must still enact population monitoring, new land-use policies, national conservation funding, and enforcement mechanisms. Zimbabwe's cheetahs may also move through areas connected to Botswana, Mozambique, South Africa, and Zambia. As a result, the listing will have the greatest effect when surrounding countries share information and coordinate their policies. A stronger international status can create pressure for action, but national governments still decide how that protection is applied. Without regional cooperation, cheetahs may remain protected in one country while facing weaker enforcement after crossing a border.

Meanwhile, Iran remains one of the most urgent current cases. The most recent detailed monitoring report is from October 2024, which documented six female cheetahs, four males, and 17 cubs in the Touran Biosphere Reserve. Researchers collected more than 797 photographs between 2021 and 2023 to identify individual cheetahs and study their movements.¹⁷³ Touran is the only protected area in Iran where cheetah breeding has been confirmed during recent years. This means that the survival of the Asiatic cheetah is now largely dependent on one main breeding area. Current monitoring in Iran

has produced useful information using camera traps, but it has also shown how limited the population has become.¹⁷⁴

Researchers have called for satellite collars, genetic studies, additional camera traps, and stronger equipment for rangers. Monitoring outside Touran has also produced fewer confirmed sightings, making it difficult to determine whether cheetahs remain in some nearby areas. Iran's other conservation work includes a campaign to improve safety along the Tehran–Mashhad highway. There are also efforts to study possible movement corridors outside protected areas. Finally, more than 50 rangers received equipment, training, or field support between 2021 and 2023 to get involved with efforts.¹⁷⁵ Iran's situation shows how different regional populations require unique international responses. Larger populations may need broad regional coordination and monitoring, while Iran requires much more close monitoring of individual cheetahs, roads, and breeding areas.

Together, these programs show early progress in reestablishing and monitoring cheetah populations, although it is too soon to know whether the newly established populations will remain viable without continued management. India has recorded 33 locally-born cheetahs to rebuild its population. Eswatini has restored the species after more than three decades, with promising signs for the future. Zimbabwe has successfully gained stronger CMS protection to protect their population, along with the prospect of greater regional cooperation. Finally, Iran's monitoring has also identified current breeding and movement patterns essential to protecting a small and highly critical population of cheetahs. However, none of these results guarantee long-term survival. Each program still depends on continued funding, genetic management, monitoring, and international support.

ILLEGAL WILDLIFE TRADE AND INTERNATIONAL ENFORCEMENT GAPS

Illegal wildlife trade remains one of the clearest ongoing threats to cheetahs, and new cases are constantly appearing. In August 2025, Somaliland authorities rescued ten cheetah cubs in the process of being trafficked and arrested two people. Several of the cubs were severely malnourished, and one had been tied up for months until it could no longer walk normally.¹⁷⁶ About six weeks later, the Somaliland Coast Guard intercepted another eleven cubs near Berbera, arresting another five suspects. The eleven cubs were placed inside sacks and loaded onto a small boat crossing the Gulf of Aden to be taken abroad. Two of the cubs later died due to the extremely poor conditions.¹⁷⁷ As seen in these cases, cheetah trafficking goes far beyond illegal pet ownership. It must be treated as organized crime across international lines, actively harming a critically endangered species.

A network of participants is often involved before cheetahs reach their buyers. A person near a cheetah habitat may first capture the cub or provide information about its location. Middlemen then organize transportation toward a town or coastal port. Drivers, boat crews, online sellers, and false permit providers may all become involved to ensure the animal reaches its final buyer. Arresting solely the carrier does not necessarily reach the people organizing or financing the larger network. Source, transit, and destination countries therefore hold different responsibilities. Source areas need rural patrols, local reporting systems, and faster responses when cubs are captured. Transit states need trained customs officers, police, and coast guards who can identify live wildlife hidden in vehicles or boats. Destination countries must inspect private collections and punish the buyers creating demand. If one part of this system remains weak, traffickers can change routes and continue operating.

Somaliland's current enforcement has successfully recovered many trafficked animals.

The last three known asiatic cheetahs in India were shot dead in 1947. This photo was submitted to the Journal of the Bombay Natural History Society

Credit: Private Secretary to Maharajah Ramanuj Pratap Singh Deo



During 2025, the rescue center in Somaliland received 31 newly confiscated cheetahs, along with three adult males removed from a private residence. By the end of the year, the center was caring for 123 cheetahs and two caracals (medium-sized wild cats).¹⁷⁸ This statistic shows that trafficking remains active enough to continually fill rescue facilities. Further, most confiscated cubs cannot simply be released. Many were captured before learning how to hunt, while others were injured, tied up, or kept in captivity for long periods. The Somaliland center now requires veterinary staff, food, quarantine areas, secure enclosures, and long-term funding to care for the animals. In 2025, a new 15,000-square-foot education and training center also opened to train rangers, farmers, teachers, and wildlife managers from across the Horn of Africa.¹⁷⁹ Every successful seizure therefore creates a second international responsibility involving animal care and future prevention.

Destination countries have also taken action. The United Arab Emirates currently bans private ownership of wild, dangerous, and exotic animals unless they are kept by approved institutions such as zoos, wildlife parks, breeding centers,

or research facilities. Violations may lead to confiscation, imprisonment, and monetary fines ranging from AED 10,000 to AED 700,000. The law directly targets the private ownership that supports exotic pet demand. However, it must be backed by inspections of private collections and stronger investigations into the origins of captive cheetahs.

Online activity continues to make enforcement more difficult. A cheetah can be advertised through photographs, private messages, or temporary social media accounts. However, the buyer, seller, and animal may all be in different countries. Removing an advertisement does not identify the trafficker or prevent the same person from creating another account. As such, digital evidence, payment records, account information, and cooperation from social media and technology companies are essential for effective enforcement.

CITES requires countries to submit annual illegal-trade reports covering seizures at borders and within homes, businesses, or local markets. However, CITES states that the reports are not directly connected to a compliance procedure.¹⁸⁰

Although these reports are required, they are not subject to CITES compliance procedures, and reporting has been incomplete. The main CITES Trade Database also does not include domestic trade or illegal trade in its ordinary annual-trade records. These forms of trade must be tracked through separate reporting systems.¹⁸¹ Poor coordination and information sharing can lead to wasted resources and ultimately less effective enforcement. It is incredibly important to develop a stronger system for reporting and sharing information to connect incidents across source, transit, and destination countries.

Another important aspect is improving domestic law enforcement systems. One example is the process of gathering evidence. The recovery of a trafficked cheetah cub shows that illegal possession occurred, but it may not identify who financed or organized the trade. Investigators may need phone records, online conversations, vehicle information, payment transfers, and witness statements. Following financial records is especially important, because an organizer may fund several shipments without ever physically handling a cheetah. Somaliland and conservation partners are currently attempting to improve this part of enforcement. Existing programs include training for judges, prosecutors, customs agents, veterinarians, rural communities, and wildlife officers. A new wildlife-protection law has also been drafted and is awaiting action by Somaliland's Parliament.¹⁸²

Even so, this development takes time because there is little room for error in the process. A confiscation must be followed by a clear investigation, prosecution, and penalty if the

larger trafficking system is going to weaken. Forensic information can also connect confiscated cubs to their original capture areas. Genetic samples are currently used to study the geographic origins of seized cheetahs and may support prosecutions against traffickers.¹⁸³ This evidence can help connect source areas with animals discovered in transit or destination states. However, genetic testing requires trained laboratories, properly stored samples, and cooperation between law-enforcement agencies.

Overall, current enforcement has produced both progress and concern. Authorities rescued 21 cubs through two major 2025 operations, and destination countries such as the UAE have created stronger ownership restrictions. At the same time, Somaliland received 31 newly confiscated cheetahs in one year and ended 2025 caring for 123 total. But while cubs are being recovered, trafficking networks remain in place with minimal investigation and consequences.

FUNDING, MONITORING, AND INTERNATIONAL IMPLEMENTATION CHALLENGES

Today, cheetah conservation is not limited by a lack of possible solutions. Countries already use monitoring systems, national plans, legal protection, international transfers, and community programs. The larger issue is whether these efforts can be funded and expanded fully across the areas where they are needed. A program may produce results in one reserve or district, while nearby populations receive little support. This

Authorities rescued 21 cubs through two major 2025 operations

difference between a successful local project and international implementation continues to shape the current status of cheetahs.

In January 2024, the first Global Cheetah Summit was held in Addis Ababa, Ethiopia. It brought together government officials and conservation experts from 23 countries where cheetahs have been known to roam. Participants adopted the Addis Ababa Declaration for Global Cheetah Conservation and estimated that approximately USD 165 million would be needed each year to support conservation across the cheetah's range. The summit also brought together more than 130 participants representing over 80 government agencies, research institutions, community organizations, and conservation groups.¹⁸⁴ This created one of the largest recent international meetings focused specifically on cheetah conservation.

However, the declaration and funding estimate must still lead to national investments and active projects. An international meeting may identify the need, but implementation remains dependent on governments and donors. Estimates of the cost include population monitoring, vehicles, camera traps, enforcement teams, veterinary care, habitat management, and support for

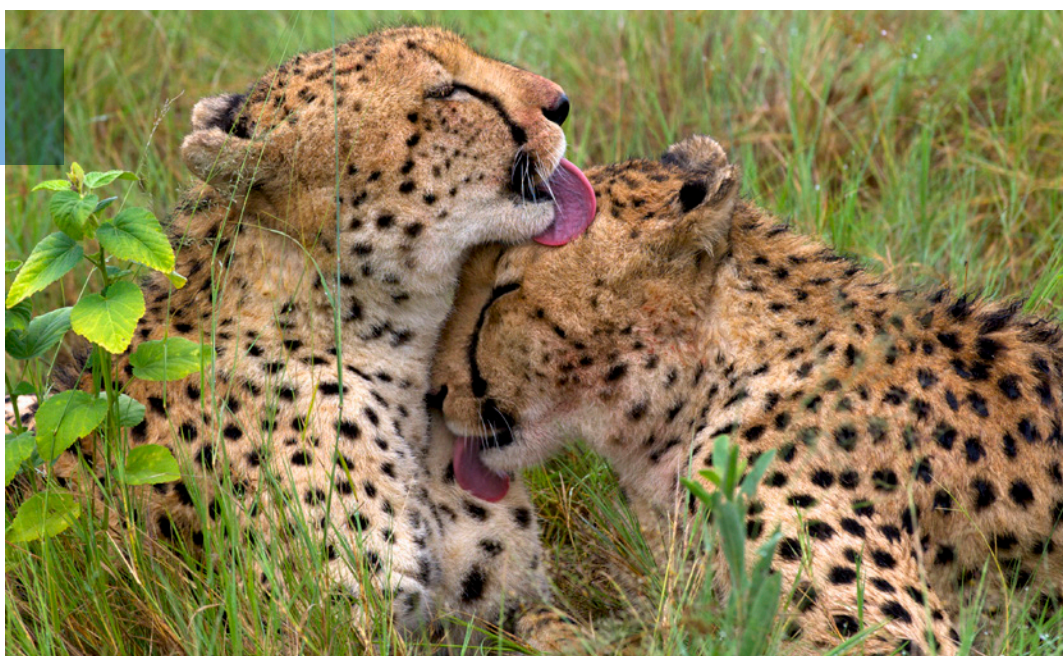
confiscated animals. It also includes programs taking place outside national parks. A short-term project may purchase equipment or hold workshops, but national conservation requires continued funding for staff, maintenance, fuel, data systems, and follow-up research. Without this support, a project may end before it produces a reliable result.

Current planning efforts already cover much of the species' African range. The Cheetah Conservation Initiative has helped create three regional strategies and 17 national action plans covering more than 90 percent of known cheetah range.¹⁸⁵ This shows that many countries already know which conservation steps are needed. The current problem is not simply the absence of written plans. It is whether each plan has government approval, funding, deadlines, and an agency responsible for completing its goals.

Government approval remains uneven. Botswana, Zimbabwe, Zambia, and Angola have approved national action plans through their wildlife authorities. Meanwhile, plans for Namibia, Mozambique, and Malawi are unendorsed and still in progress.¹⁸⁶ An unendorsed plan may still guide research or conservation groups, but it may have less authority over national budgets,

Two cheetah brothers grooming each other after feeding

Credit: Arturo de Frias Marques



agriculture, infrastructure, or land use. This affects international populations because a shared cheetah range may be managed under an approved plan in one country and an unofficial plan in another.

Together, the three regional strategies and 17 national plans aim to improve conservation across seven major transboundary cheetah landscapes. However, the plans must use compatible monitoring systems and policy goals. Otherwise, each state may collect different information and protect different parts of the same population. CMS has also identified current implementation needs. Existing decisions call for regular updates to national plans, stronger information exchange, better databases, enforcement training, and fundraising. However, CMS repeatedly states that many of these actions remain subject to external funding.¹⁸⁷ This shows a major weakness within the current international system. CMS can coordinate governments and establish goals, but it cannot independently pay for every national survey, enforcement program, or conservation project.

Namibia is one country that has been able to make meaningful progress. In June 2026, researchers submitted a national cheetah survey to the Ministry of Environment, Forestry and Tourism. The study used information collected from 2015 through 2025 across seven survey areas. Camera-trap monitoring has also been repeated every two years in central Namibia since 2010.¹⁸⁸ This creates a long-term record that can identify changes instead of depending on occasional sightings or one older population estimate. The Namibia survey is internationally important because its methods were designed for cheetahs living across different land uses and levels of human activity. Similar monitoring can be adapted in other range states. However, countries must report how many cameras, locations, and survey days were used. An increase in photographs may show population growth, but it may also result from more equipment or a larger study area.

The Joint CITES-CMS African Carnivores Initiative is also currently attempting to improve regional implementation. The initiative brings together African range states under a shared program covering cheetahs, lions, leopards, and African wild dogs. Its current work includes stronger information exchange, scientific support, fundraising, and cooperation between national conservation programs.¹⁸⁹ This creates one international structure through which governments and conservation organizations can coordinate their work.

In March 2026, IUCN and CMS also began working together to mobilize funding and expand people-centered conservation across African carnivore landscapes. Current discussions focus on national priorities, community resilience, habitat restoration, technical support, and long-term financing.¹⁹⁰ Grouping several species may reduce repeated work because the same wildlife agencies and landscapes are often involved. However, separate budgets and reporting remain necessary to show which actions directly support cheetahs. Current programs also require different forms of support in each country. For example, India needs veterinary care and genetic planning for its growing population. Meanwhile, Namibia needs to expand working early-warning and monitoring systems. Each country faces its own issues stemming from different sources, and applying the same policy to every country would ultimately make efforts less effective.

As of now, current cheetah conservation has produced measurable results. International transfers have created new populations, GPS monitoring has prevented unnecessary killing, and a ten-year national survey has improved population research. However, these efforts remain expensive and limited in scale. Twenty-three range countries have estimated a yearly need of USD 165 million, while many CMS actions continue to depend on outside funding. The current challenge is therefore not only finding possible solutions. It is expanding, financing, and maintaining the programs that have already shown positive results.

Bloc Analysis

POINTS OF DIVISION

While not every country has cheetah populations, nearly every country has policies pertaining to the conservation of species. Countries disagree on how much land to protect for cheetahs, how to maintain corridors across borders, and who should bear the costs. Range states must consider farmers, landowners, and development needs alongside conservation. Countries outside the cheetah's range may instead contribute funding, research, or action against illegal trade.

Policy-wise, some states are more comfortable and eager than others to collaborate with other countries internationally to align policies. The others may prefer to focus on sovereignty and domestic control. While many species cross borders and move in unpredictable patterns, many others are indigenous to specific countries or regions, and thus do not inherently require international collaboration or power for conservation or management. Questions of funding for conservation can also be divisive, with some countries taxing citizens and others paying from government budgets or relying on international aid.

Finally, investment in enforcement and monitoring institutions can vary and impact conservation policy. Having conservation laws does not guarantee the ability to enforce them. States range in capacity, prosecution, and monitoring systems. Conservation policy often requires an awareness of border control, trade, and poaching, which can often be difficult to manage. Not only this, but the burden of conservation is not evenly distributed. Rural communities, farmers, and landowners may live directly alongside species and habitats, while urban populations experience few of the costs associated with conservation.

STRONG INTERNATIONAL CONSERVATION AND REGULATION

States in this bloc are those who view wildlife conservation as a critical priority of the government and international institutions. These states likely are critical of voluntary actions, and instead believe in strict habitat protections and international monitoring. Policies part of this bloc will likely include a few key points. The first is a strong international framework. This means frameworks that have provisions for conservation and animal protections across borders, with clearly divided oversight bodies, responsibilities, and expectations for information sharing. Further, policies will focus on proactive actions and actions intended to reverse population declines, as opposed to simply slowing them. Countries in this bloc may include members of the European Union, the United Kingdom, Norway, Canada, Australia, and New Zealand.¹⁹¹

For example, the European Union adopted the EU Biodiversity Strategy for 2030, which mandates legal protection of at least 30 percent of EU land and 30 percent of EU seas, while also taking extra protection for one third of those lands and seas.¹⁹² The implicit premise of this strategy requires international cooperation across EU countries, with the expectation of strict applications.

Once an area is protected, governments have obligations to maintain or improve the conservation status, keeping in line with regional objectives.¹⁹³ Meanwhile, Canada has federal regulations like the “Species at Risk Act (SARA)” that grant federal protection to critical habitats with threatened species. SARA can prohibit killing and capturing, as well as the buying and trading of species. It also requires that a recovery strategy be prepared for species that are endangered or threatened with consideration of threats, population distribution, action items, and a plan to ensure recovery.¹⁹⁴ Ultimately, countries in this bloc are those that are willing to take strict action, domestically and internationally, to ensure species are saved and conserved.



Cheetah stretching in Maasai Mara, Kenya

Credit: Thomas Fuhrmann

CONSERVATION THROUGH SUSTAINABLE USE AND COMMUNITY PARTNERSHIPS

States in this bloc are those that value wildlife conservation, but hold a desire to balance the economic and political needs of local communities and landowners. Rather than relying on strict bans and regulations or expanding protected areas, these countries are more likely to focus on policies that allow people to continue using land and natural resources. Policies in this bloc will likely prioritize community management, economic incentives, ecotourism, and regulated sustainable use of natural habitats and wildlife areas. These states may be more willing to allow limited hunting or uses of wildlife land when governments determine it feasible.¹⁹⁵ Countries in this bloc may include Namibia, Botswana, South Africa, Zimbabwe, Zambia, Kenya, and Tunisia.

For example, Namibia's communal conservancy system gives local communities rights and responsibilities over wildlife management within assigned regions. Communities receive economic benefits from sustainable wildlife practices through activities like ecotourism and regulated use. This creates an incentive to maintain

wildlife populations and habitats. Rather than separating people from wildlife, this attempts to make conservation economically incentivized for communities that bear the cost of living alongside animals.¹⁹⁶

In a similar case, South Africa uses a sustainable-use approach to conservation. Wildlife is managed through public, but protected, areas, private reserves, and regulated use. This is contrasted against complete bans or free use. Ultimately, countries in this bloc are those that will take action to support conservation efforts, but will prioritize ensuring communities are not economically disadvantaged or ignored.¹⁹⁷

DEVELOPMENT AND CAPACITY-FOCUSED STATES

Countries in this bloc are those that understand the importance of wildlife conservation, but are more focused on economic development, sovereignty, or other priorities. These states are likely to be hesitant to adjust their policies alongside their neighbors or international shifts. These countries are further likely to resist measures or policies that may impede or

harm agriculture, infrastructure, or economic development. Policies in this bloc will emphasize flexibility, assistance, gradual implementation, and education, as opposed to mandated reform. Countries in this bloc are also unlikely to have sufficient resources to support large-scale conservation campaigns and policies. Countries in this bloc may include Angola, Mozambique, Malawi, Ethiopia, and Somalia.¹⁹⁸

For example, Mozambique's conservation attempts must operate alongside development and land-use pressure. Large wildlife landscapes border and overlap with settlements, farms, roads, and broader human-developments. In this case, expanding conservation policies would have a direct tradeoff with economic development. While Mozambique has attempted to implement policies related to cheetah protection, they faced large implementation challenges due to a lack of infrastructure.¹⁹⁹

In a similar case, Angola developed a national action plan to help with regional cheetah conservation. However, the plan must compete with other national projects for government funding and manpower. Funding and staffing constraints may limit how fully the plan can be implemented. Ultimately, countries in this bloc do not inherently (though they may) oppose conservation. Rather, they emphasize other priorities and national autonomy.²⁰⁰

Committee Mission

The Convention on Migratory Species (CMS) was established to address the way humans interact with animals. CMS is the only global treaty built specifically around migratory species, their habitats, and the ways they function.²⁰¹ While CMS focuses on the protection of migratory species, it also coordinates international governance among member states.

Members of CMS should take into account the scope of the committee and the way they answer the call to action. For example, CMS does not

patrol borders, create national parks, or attempt to replace a nation's sovereignty for species. It instead chooses to coordinate among member states, raise protection standards, and push national action plans toward completion. CMS works to link habitats, create centralized data, and work alongside other major policies that have been created. While cheetahs are already protected under specific legal protections, the main gap that CMS attempts to fill is how steadily states choose to enforce these protections within and beyond their borders.²⁰²

It is important to highlight the main shortfalls of CMS as an international body. Habitat corridors and cross-border conservation are difficult to maintain when neighboring countries have different land-use rules, conservation priorities, or enforcement capacity. Illegal trade is steady as CMS lacks strong crime reporting, customs training, and information sharing between states. Meanwhile, community-based conservation should become a national priority by supporting local communities affected by cheetah predation. These efforts depend on countries putting CMS recommendations into practice and adapting them to local communities and conditions.

Every state has a role to play in conserving the cheetah population, whether that be funding, technical support, or flexibility of their policy. States with less of a direct stake in the matter can always contribute through cooperation, research, and diplomatic support. Additionally, effective solutions must also address the different levels of responsibility among member states. Range states and states that contribute to the exotic wildlife trade, must take initiative rather than countries that may be unaffected by the issue. While CMS functions to protect migratory species like cheetahs, it ultimately relies on the cooperation of all countries to play their part.²⁰³

Research and Preparation Questions

Your dais has prepared the following research and preparation questions as a means of providing guidance for your research process. These questions should be carefully considered, as they embody some of the main critical thought and learning objectives surrounding your topic.

TOPIC A

- 1 How do the snowy owls migration patterns affect their surrounding ecosystems
- 2 How have past/current governments and organizations failed to address the snowy owl population decrease? How have they succeeded in increasing the population?
- 3 What is the most habitable environment for a snowy owl breeding site? What are environmental drawbacks that prevent these necessities, and how can those drawbacks be reversed?
- 4 What are common disputes across foreign borders relating to migratory species? How can those disputes be resolved?
- 5 What drawbacks are present when attempting to implement population monitoring in rural areas? How can those drawbacks be minimized, and how can monitoring improve?
- 6 How does the avian flu affect the snowy owl population? What steps can be made to reverse its effects?

TOPIC B

- 1 What role does your country currently play in cheetah conservation? Are they a range state, transit state, destination state, donor, or international partner? What specific policies could it realistically support and implement to help struggling cheetah populations?
- 2 How can states protect transboundary cheetah habitats while respecting national sovereignty and individual authority over land use?
- 3 Should CMS prioritize the expansion of protected areas, such as national parks, or the protection of wildlife corridors?? How should countries determine which approach is more effective within their own borders?
- 4 What individual responsibilities do range, transit, and destination states each hold for preventing the illegal cheetah trade? How should these responsibilities be shared when trafficking networks operate across several countries?
- 5 How can conservation policies protect cheetah populations without placing an unfair economic burden on farmers and communities that experience livestock loss or restrictions on land use?
- 6 To what extent should wealthier or non-range states be responsible for financing cheetah conservation? What conditions should accompany this funding?

Important Documents

TOPIC A

- “Climate Change Snowy Owls and Arctic Ecosystems,” Owl Research Institute, accessed July 26, 2026, www.owlresearchinstitute.org/climate-change-and-snowy-owls
- “COSEWIC Assessment and Status Report,” Government of Canada, accessed June 19, 2026, www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/snowy-owl-2025.html
- “New Project: Tracking young Snowy Owls in the Arctic,” Owl Research Institute, accessed July 11, 2026, www.owlresearchinstitute.org/single-post/2018/10/01/ori-collaborates-on-a-satellite-transmitter-project-with-young-snowy-owls
- “Our 2025-26 Campaign,” Project SNOW Storm, accessed June 8, 2026, www.projectsnowstorm.org/story/
- Scott Weidensaul, “First-ever Global Status Assessment for Snowy Owls Raises Red Flags,” Project SNOW Storm, published January 6, 2025, www.projectsnowstorm.org/posts/first-ever-global-status-assessment-for-snowy-owls-raises-red-flags/
- Scott Weidensaul, “The 2024 Arctic Report,” Project SNOW Storm, published December 1, 2024, www.projectsnowstorm.org/posts/the-2024-arctic-report/

TOPIC B

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About the Authors

TOPIC A: MYTAE SUNTAY

Mytae Suntay is an undergraduate student at De Anza College. She plans to transfer in the fall of 2027 to the University of California, San Diego, where she will obtain her bachelor's degree in aerospace engineering. After achieving a bachelor's degree, Mytae plans to pursue a graduate program for chemical engineering. Mytae grew up in San Jose, California, where she pursued Model United Nations since her sophomore year of high school. During high school, she served as the Under Secretary-General of Records for her high school's conference, Silicon Valley Model United Nations. As a delegate, Mytae competed in a wide range of committees, from general assembly to crisis committees. In her senior year of high school, she participated in the Convention on Migratory Species simulation at the National High School Model United Nations conference, where she achieved an Award of Excellence.

TOPIC B: LOGAN KUSTRA

Logan Kustra is a sophomore at the University of California, Santa Cruz, where he studies molecular, cell, and developmental biology on his way to becoming a veterinarian. Born and raised in Huntington Beach, California, he found Model United Nations in high school and never let go, debating across committees and styles at high school, collegiate, and international conferences. He first came to NHSMUN as a delegate in 2024, returned as an Assistant Director for the Food and Agriculture Organization, and now serves as Director of the Convention on Migratory Species. This committee brings together his two great loves: global cooperation and the animals that cross our borders without ever needing a passport. At UCSC, he is active in the Pre-Veterinary Club and serves as philanthropy chair for his fraternity, planning events that give back to his community and, whenever possible, to its four-legged members. When he isn't at the beach, which is rarely, he can be found trying new restaurants, playing intramural sports, catching a movie with friends, or losing gracefully at whatever video game has most recently captured his attention.

Additional writing by Sabeeh Mirza

Edited by Adam Allibhoy, Armen Bagdassarian, Ana Margarita Gil, Siya Goswami, Juliana Johnson, Althea Turley, and Olivia Woodard

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