

The European Hedgehog: A Species at Risk

Associated Member

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The European hedgehog, also known as the West European hedgehog or common hedgehog, is a beloved inhabitant of European gardens and woodlands. With its endearing appearance and valuable role in pest control, this species has long been cherished by wildlife enthusiasts. However, recent reports suggest that the hedgehog's future may be uncertain, particularly in Great Britain, where populations are declining at an alarming rate.

Description and Characteristics

The European hedgehog possesses a distinctive appearance, with a body covered in up to 6000 brown and white spines. Despite its widespread distribution across Europe, the hedgehog faces threats to its survival, including habitat loss and fragmentation.

Behaviour and Ecology

The European hedgehog is primarily nocturnal, relying on its keen sense of smell to forage for food. Its diet consists mainly of insects such as earthworms, snails, and beetles, making it a valuable ally in controlling garden pests.

Breeding and Longevity

Breeding occurs after hibernation, with pregnancies peaking between May and July. Litters typically range from two to ten offspring, with the young born blind and covered in small spines. Hedgehogs may live for more than ten years, although the average life expectancy is three years.

Distribution and Habitat

While the European hedgehog is native to Europe, it has also been introduced to other regions, including New Zealand. Despite its adaptability to a wide range of habitats, the hedgehog's preferred environments are gardens, parks, and other areas close to human settlements.

Data Table: Hedgehog Population by Country/Region

Country/Region	Estimated Population (millions)	Species	Notes
Afghanistan	0.1 - 0.5	Hemiechinus auritus (Long-eared hedgehog)	Data very scarce, potential presence based on limited distribution information.
Belarus	0.1 - 0.5		
China	1 - 5	Erinaceus amurensis (Amur hedgehog)	Primarily found in northern and eastern China.
China	1 - 5		Primarily the Amur hedgehog (Erinaceus amurensis), data scarce
Czech Republic	0.1 - 0.5		Potential decline, limited data
Denmark	0.05 - 0.2		Potential decline, limited data
France	0.5 - 2		Potential decline, limited data
Germany	0.5 - 1.5		Potential decline, limited data

Great Britain	1 - 2	Erinaceus europaeus (European hedgehog)	Likely decline, data varies by region. A more recent estimate of 1,550,000 in Great Britain
Iran	0.1 - 0.5	Paraechinus hypomelas (Brandt's hedgehog)	Primarily found in arid and semi-arid regions.
Italy	0.2 - 1		Potential decline, limited data
Kazakhstan	0.1 - 0.5	Hemiechinus auritus (Long-eared hedgehog)	Primarily found in steppes and deserts.
Mongolia	0.1 - 0.5	Hemiechinus auritus (Long-eared hedgehog)	Primarily found in steppes and deserts.
Netherlands	0.05 - 0.2		Potential decline, limited data
New Zealand	10 - 50	Erinaceus europaeus (European hedgehog)	Introduced population, considered a conservation concern due to predation on native fauna.
North Korea	0.1 - 0.5	Erinaceus amurensis (Amur hedgehog)	Data very scarce, potential presence based on limited distribution information.
Poland	0.5 - 2		Potential decline, limited data
Russia	0.5 - 2	Primarily the Northern white-breasted hedgehog (Erinaceus concolor)	Data scarce

South Korea	0.1 - 0.5	Erinaceus amurensis (Amur hedgehog)	Data very scarce, potential presence based on limited distribution information.
Spain	0.1 - 0.5		Potential decline, limited data
Ukraine	0.2 - 1		Potential decline, limited data

Population Decline Analysis:

1. **Surveys and Estimates:** Various surveys and studies have been conducted to assess hedgehog populations across different regions. For instance, a recent estimate suggests that there may be fewer than a million hedgehogs left in Great Britain, with populations declining by up to 75% in rural areas since 2000.
2. **Urban vs. Rural Decline:** Analysis of population trends indicates that rural hedgehog populations have been particularly hard hit, with declines ranging from 30% to 75% since the turn of the century. In contrast, urban populations have also shown significant declines, albeit to a lesser extent, with reductions of up to a third over the same period.
3. **Habitat Loss and Fragmentation:** One of the primary factors driving hedgehog declines is habitat loss and fragmentation. As human development expands and natural habitats shrink, hedgehogs are losing crucial foraging and nesting sites. Analysis of habitat data reveals a clear correlation between habitat loss and hedgehog population decline.
4. **Predation Pressure:** Increased predation pressure, particularly from badgers, has also contributed to hedgehog declines, especially in rural areas. Analysis of predation data shows a significant overlap between badger territories and hedgehog habitats, resulting in higher rates of hedgehog predation.
5. **Road Mortality:** Road mortality is another significant factor impacting hedgehog populations, especially in urban and suburban areas. Analysis of roadkill data highlights the prevalence of hedgehog casualties on roads, indicating a need for better road safety measures to protect hedgehogs.

The Elusive Nature of Counting Hedgehogs:

Unlike their larger counterparts, hedgehogs present unique challenges when it comes to population estimation. Their nocturnal habits render them largely invisible during the day, and their preference for dense undergrowth and hedgerows further complicates sighting and tracking efforts. Traditional methods like capture-mark-recapture, while valuable, are often time-consuming and resource-intensive, limiting their widespread application. This lack of readily available data paints an incomplete picture of global hedgehog populations, hindering our understanding of their current status and future prospects.

A Regional Spotlight: Unveiling Population Trends: While a comprehensive global picture remains elusive, examining regional trends can offer valuable insights:

Europe: The European hedgehog (*Erinaceus europaeus*) experiences alarming declines, particularly in rural areas. Estimates suggest a potential decline exceeding 50% in Britain alone, attributed to habitat loss, fragmentation, and widespread use of pesticides. This decline highlights the urgent need for conservation interventions to safeguard this iconic species.

New Zealand: Ironically, New Zealand boasts the world's largest introduced hedgehog population, estimated at a staggering 10-50 million. However, this success story comes with a caveat. These hedgehogs, lacking natural predators, pose a significant threat to native fauna, including invertebrates, lizards, and ground-nesting birds. Striking a balance between managing the introduced population and protecting native biodiversity remains a critical challenge.

Other Regions: Data scarcity becomes even more pronounced in regions like Africa and Asia. Species like the Amur hedgehog (*Erinaceus amurensis*) and the Long-eared hedgehog (*Hemiechinus auritus*) face diverse threats, including habitat loss due to agricultural expansion and urbanization, but reliable population estimates are largely unavailable. This lack of data hinders our ability to assess their vulnerability and implement effective conservation measures.

Beyond the Numbers: Understanding the Underlying Threats:

While population estimates provide a crucial starting point, it is essential to delve deeper into the factors influencing these trends. Habitat loss and fragmentation due to urbanization and agricultural intensification are primary contributors to hedgehog declines across their range. Additionally, the widespread use of pesticides disrupts their food sources and poses direct health risks. Furthermore, climate change, with its associated changes in temperature and precipitation patterns, is emerging as a potential threat, requiring further investigation.

A Call to Action: Collaborative Efforts for a Brighter Future:

The lack of robust data on global hedgehog populations underscores the urgency for increased research and conservation efforts. By employing a multifaceted approach, we can work towards a brighter future for these spiny ambassadors:

Developing Improved Surveying Methods: Exploring non-invasive techniques like camera traps, remote sensing technologies, and genetic analysis can offer valuable insights into population trends and distribution patterns. Citizen science initiatives, engaging the public in data collection, can also play a vital role in bridging the data gap.

Raising Public Awareness: Public education campaigns can foster appreciation for hedgehogs and their ecological significance, encouraging responsible practices such as creating wildlife-friendly gardens and advocating for habitat protection measures.

Promoting Habitat Protection and Restoration: Protecting and restoring natural habitats, including hedgerows, field margins, and natural corridors, is critical for providing safe havens, food sources, and breeding grounds for hedgehogs. Additionally, encouraging sustainable agricultural practices that minimize pesticide use can further support their survival.

International Collaboration: Given the global distribution of hedgehogs, fostering international collaboration among researchers, conservation organizations, and policymakers is crucial. Sharing knowledge, expertise, and best practices across borders can significantly enhance our collective efforts to conserve these fascinating creatures.

Analysis and Insights:

Were Hedgehogs Endangered?

While hedgehogs are not classified as globally endangered, several regions report potential declines in their populations. Limited data availability in certain areas, such as Afghanistan and North Korea, makes it challenging to assess their conservation status accurately.

How Many Hedgehogs Are There Now?

The estimated hedgehog populations vary widely across countries, ranging from a few hundred thousand to several million individuals. This variability underscores the importance of localized conservation efforts tailored to specific regions and species.

Which Country/Region Has the Most Hedgehogs in the World?

New Zealand stands out with a population estimate ranging from 10 million to 50 million hedgehogs, primarily consisting of European hedgehogs. However, their introduction has raised concerns due to predation on native fauna.

What Eats a Hedgehog?

Hedgehogs face predation from various sources, including birds of prey, foxes, badgers, and domestic pets. Despite their spiny exterior providing some defense, hedgehogs remain vulnerable to predation, particularly during hibernation and when crossing roads.

Why Are Hedgehogs So Rare?

Habitat loss, fragmentation, and urbanization are among the primary drivers of hedgehog declines globally. Additionally, their vulnerability to predation and road accidents exacerbates population declines, especially in regions with intensive human activities.

What Countries/Regions Have Hedgehogs?

Hedgehogs are found in diverse habitats across the globe, from temperate forests to arid deserts. While some species have wide distributions, others are confined to specific regions with suitable environmental conditions.

In conclusion, understanding the regional variations in hedgehog populations and addressing localized threats are essential for their conservation. By implementing targeted conservation measures and raising awareness about the importance of hedgehog habitats, we can work towards ensuring the long-term survival of these iconic mammals.

Conservation Efforts:

Despite these challenges, conservation efforts are underway to protect and conserve hedgehog populations. These efforts include habitat restoration, creation of wildlife corridors, and public awareness campaigns to promote hedgehog-friendly practices.

Conclusion:

The decline of the European hedgehog is a concerning trend that requires urgent attention and action. Through data analysis and targeted conservation efforts, we can work towards reversing the decline of this iconic species and ensuring its survival for future generations to enjoy.

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