

# Strong link found between habitat use by Snow leopard, Siberian ibex, blue sheep

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**In news**– The new study by the Zoological Survey of India (ZSI) under National Mission on Himalayan Studies revealed a strong link between habitat use by Snow Leopard and its prey species Siberian ibex and blue sheep.

## **Key findings of the study-**

Following are some of the findings of the new study:

- The **study aimed at examining how the predator used habitat in presence or absence of its prey species** and vice-versa
- They have found that the **snow leopard detection probability was high if the site was used by its prey species**, i.e., ibex and blue sheep.
- Whereas, in the case of the prey species, the probability of detection was low when the predator (snow leopard) was present and detected.
- Besides this, the study suggested that both species were less likely to detect together than expected.
- The study suggested that **habitat covariates, such as barren area, grassland, aspect, slope and distance to water were important drivers of habitat use** for the snow leopard as well as its prey species.
- **Spiti Valley possessed a good habitat in and outside the protected areas** which could support a viable population of both threatened snow leopard and its prey species.
- Predators such as snow leopards regulated the populations of herbivores such as the blue sheep and Siberian ibex, thereby **safeguarding the health of grasslands** and a long-term absence of snow leopards

could cause trophic cascades as ungulate populations would likely increase, leading to depletion of vegetation cover.

### Snow Leopard-

- The snow leopard (also called ounce) is found in high mountains in Central Asia.
- **In India, it inhabits the higher Himalayan and trans-Himalayan landscape in the states** of Ladakh, Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.
- They use rugged mountainous areas or non-forested areas covering an altitude between 3200m-5200m.
- Snow leopards are not known to be aggressive toward humans.
- It is the **National Heritage Animal of Pakistan and Afghanistan.**
- **Classified as 'Vulnerable' by the IUCN Red list, Appendix I in CITES and listed in Schedule-I species of the Indian Wildlife (Protection) Act, 1972.**

### National Mission on Himalayan Studies-

- It is a Central Sector Grant-in-aid Scheme
- It aims to provide much needed focus, through holistic understanding of system's components and their linkages, in addressing the key issues relating to conservation and sustainable management of natural resources in the Indian Himalayan Region (IHR).
- **The ultimate goal is to improve quality of life and maintain ecosystem health of the region** to ensure long-term ecological security to the country.
- **As the Mission specifically targets the Indian Himalayan Region (IHR), the jurisdiction of NMHS includes 10 Himalayan states fully** (i.e., Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand) and

**two states partially** (i.e., hill districts of Assam and West Bengal).

- With a broad Vision to support the sustenance and enhancement of the ecological, natural, cultural, and socio-economic capital assets and values of the IHR, the mission is to launch and support innovative studies and related knowledge interventions.

**The NMHS envisages to work towards a set of linked and complementary goals to:**

- Foster conservation and sustainable management of natural resources;
- Enhance supplementary and/or alternative livelihoods and overall economic well-being of the region;
- Control and prevent pollution in the region;
- Foster increased/augmented human and institutional capacities and the knowledge and policy environment in the region; and
- Strengthen, greening, and fostering development of climate-resilient core infrastructure and basic services assets.