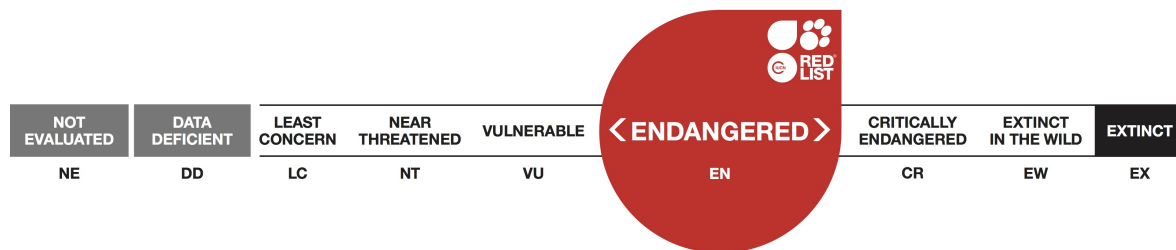


Caprolagus hispidus, Hispid Hare

Assessment by: Aryal, A. & Yadav, B.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Lagomorpha	Leporidae

Taxon Name: *Caprolagus hispidus* (Pearson, 1839)

Common Name(s):

- English: Hispid Hare, Assam Rabbit, Bristly Rabbit, Hispid Hare
- French: Lapin de l'Assam
- Spanish: Conejo de Assam

Taxonomic Notes:

Caprolagus hispidus was originally described as a *Lepus*, but shortly thereafter its unique characteristics clearly defined it as a separate genus. There are no recognized subspecies of *Caprolagus hispidus* (Hoffmann and Smith 2005).

Assessment Information

Red List Category & Criteria: Endangered B2ab(ii,iii,v) [ver 3.1](#)

Year Published: 2019

Date Assessed: June 30, 2018

Justification:

The Hispid Hare is confirmed Endangered because exists within an area of occupancy (AOO) of less than 500 km², in highly fragmented habitats. The species is experiencing continuing decline in suitable habitat area due to seasonal controlled burning, increasing agriculture, flood control, grazing pressure, predation, loss of grassland habitat due to encroaching broadleaved trees, thatch collection, and human development (Bell *et al.* 1990, Maheswaran 2002, Jordan *et al.* 2005, Yadav *et al.* 2008, Jnawali *et al.* 2011, Aryal *et al.* 2012, Tandan *et al.* 2013, Nath and Machary 2015, Nidup *et al.* 2015, Khadka *et al.* 2017).

Previously Published Red List Assessments

2008 – Endangered (EN)

<http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T3833A10112058.en>

1996 – Endangered (EN)

1994 – Endangered (E)

1990 – Endangered (E)

1988 – Endangered (E)

1986 – Endangered (E)

1965 – Status inadequately known-survey required or data sought

Geographic Range

Range Description:

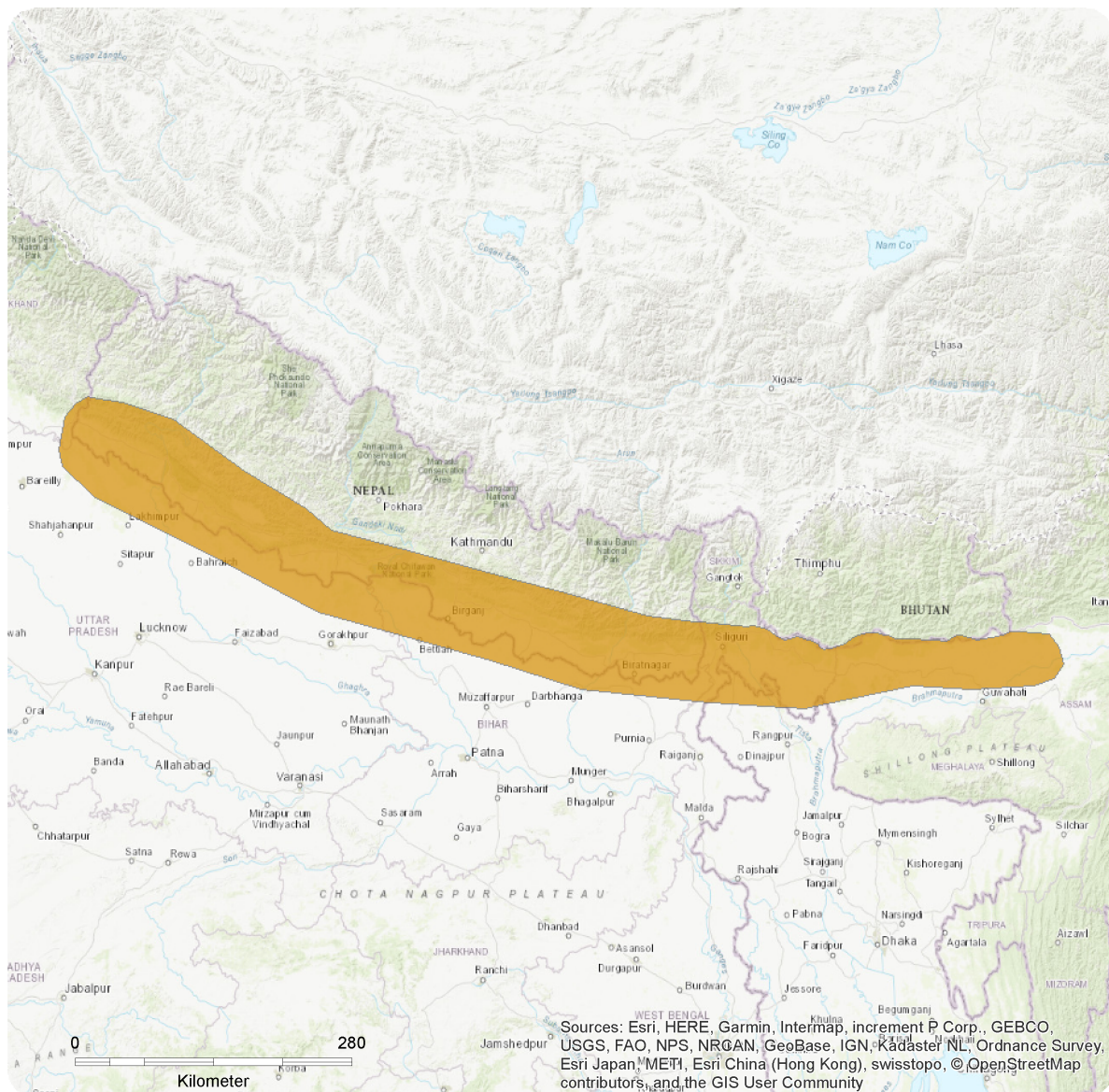
Knowledge of the distribution of the Hispid Hare has always been limited. The historic range of the species extended along the foothill region of the southern Himalayas from Uttar Pradesh through southern Nepal, the northern region of West Bengal to Assam, and into Bangladesh as far south as Dacca (Bell *et al.* 1990). The current distribution in South Asia is sporadic, including the countries of Bangladesh, India, Nepal, and Bhutan (Jordan *et al.* 2005, Yadav *et al.* 2008, Aryal *et al.* 2012, Tandan *et al.* 2013, Nath and Machary 2015, Nidup *et al.* 2015, Khadka *et al.* 2017). While its extent of occurrence is estimated to be 188,316 km², this belies its highly fragmented occurrence and highly specialized habitat that is under threat from numerous factors. Recent observations (within the past 10 years) have only been made in Shuklaphanta National Park, Bardia National Park, Chitwan National Park (Nepal), Jaldapara National Park and Manas National Park (India) and Royal Manas National Park (Bhutan) (Yadav *et al.* 2008, Aryal *et al.* 2012, Tandan *et al.* 2013, Nath and Machary 2015, Nidup *et al.* 2015, Khadka *et al.* 2017). Within each of these parks only small areas of grassland habitat are suitable for the Hispid Hare, and most surveys are only successful at finding occupancy, in small numbers, in a small percentage of potential habitat. The number of locations where extant Hispid Hare populations have been located in the past 10 years, as evidenced by the recent literature, is significantly less than the number of those identified by Bell *et al.* (1990). The area of occupancy for the Hispid Hare has been estimated to be <500 km², in highly fragmented populations in widely disparate localities (Jordan *et al.* 2005). It occurs at elevations ranging from 100-250 m (Jordan *et al.* 2005).

Country Occurrence:

Native: Bhutan; India (Assam, Uttar Pradesh, West Bengal); Nepal

Distribution Map

Caprolagus hispidus

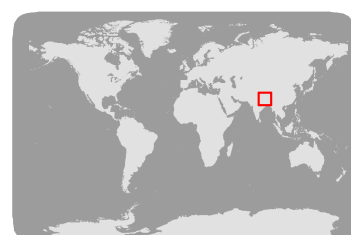


Range

Extant (resident)

Compiled by:

IUCN (International Union for Conservation of Nature)



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

During the mid-1960s there was speculation that the Hispid Hare had gone extinct, however, the capture of a live specimen in 1971 in the Barnadi Wildlife Sanctuary, northwest Assam, confirmed that the species was persisting (Maheswaran 2002). Across its range the species has experienced a dramatic decline due to habitat loss and other contributing factors in recent years, using the early work of Bell (1987), Bell *et al.* (1990), and Maheswaran (2002) as benchmarks. For example, at Suklaphanta Wildlife Reserve Bell (1987) found a density of 6.10/ha, whereas Yadav *et al.* (2008) determined the density to be 1.01/ha. Working in the same reserve, Aryal *et al.* (2012) estimated that the entire population size was only 219 (± 40) Hispid Hares. The recent discovery of a Hispid Hare in Chitwan National Park was the first sighting of this species there in over three decades (Khadka *et al.* 2017).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The Hispid Hare primarily occupies tracts of early successional tall grasslands, locally termed "elephant grass" (Bell *et al.* 1990). During the dry season, most grassy areas are subject to burning, and the rabbits take refuge in marshy areas or grasses adjacent to river banks that are not susceptible to burning (Bell *et al.* 1990). Hispid Hares consume about 20 species of plant, but concentrate their diet on Kans (*Saccharum spontaneum*) and Cogon Grass (*Imperata cylindrica*) (Aryal *et al.* 2012).

The limited information available on reproduction indicates that the Hispid Hare probably has a small average litter size (Bell *et al.* 1990). It exhibits crepuscular behaviour (Jordan *et al.* 2005).

Systems: Terrestrial

Use and Trade

This species may be locally harvested, although due to its extremely low density, it is not highly sought after (Jordan *et al.* 2005).

Threats (see Appendix for additional information)

The primary threat to Hispid Hare populations is habitat loss, caused by encroaching agriculture, logging, summer flooding, and human development (Bell *et al.* 1990). The natural spatial and temporal dynamics of the tall grassland habitat, particularly the fire cycles, are key important to the conservation of this species (Bell *et al.* 1990, Maheswaran 2002, Yadav *et al.* 2008, Aryal *et al.* 2012, Tandan *et al.* 2013, Nath and Machary 2015, Nidup, Dorji and Jamphel 2015). The natural process of succession of grassland into woodlands reduces suitable habitat for grassland specialists such as the Hispid Hare. Thus, the elephant grass habitat occupied by the species is highly fragmented, and often intersected by forests, streams, and rivers (Maheswaran 2002). It has been estimated that a decline (quantitative and qualitative) of 20-50% in suitable habitat occurred between 1994 and 2005, a rate that was expected to continue through 2014 (Jordan *et al.* 2005). Recent literature indicates that the destruction of habitat has continued (Yadav *et al.* 2008, Aryal *et al.* 2012, Tandan *et al.* 2013, Nath and Machary 2015, Nidup, Dorji and Jamphel 2015). The Hispid Hare is also affected negatively by grazing, predation, loss of grassland habitat due to encroaching broadleaved trees, and thatch collection (Yadav *et al.* 2008).

Conservation Actions (see Appendix for additional information)

The Hispid Hare is listed in CITES Appendix I (although this may be a historical artifact of an early listing; the species is never known to have been involved in trade), in India it is listed in Schedule I of the Indian Wildlife Protection Act of 1972, and in Nepal it is listed in Schedule I of the National Parks and Wildlife Conservation Act of 1973 (Bell *et al.* 1990, Jordan *et al.* 2005, Jnawali *et al.* 2011). It has been nationally listed in India as Endangered B2ab(ii,iii,iv) due to restricted area of occupancy, few and fragmented locations, with major threats affecting habitat area and quality (Jordan *et al.* 2005). In Nepal, it has been nationally listed as Critically Endangered B1ab(ii,iii,iv)+2ab(ii,iii,iv) due to restricted extent of occurrence and area of occupancy, single location with major threats affecting habitat area and quality (Jordan *et al.* 2005). The Hispid Hare has records of occurring in several protected areas, including Suklaphanta National Park (earlier Suklaphanta Wildlife Reserve), Bardia National Park, Chitwan National Park, Dudwa National Park, Jaldapara Wildlife Sanctuary, Manas Wildlife Sanctuary, Kahna National Park, and Barnodi Wildlife Sanctuary (Maheswaran 2002, Jordan *et al.* 2005, Jnawali *et al.* 2011). A survey conducted in 2001 found no evidence of the presence of the Hispid Hare in Buxa Tiger Reserve, where it had been reported as occurring in the 1980s (Maheswaran 2002). And as indicated above, recent sightings have been confined to a small number of national parks and wildlife sanctuaries.

Long term research is needed to examine effects of threats such as burning, harvesting, and livestock grazing, as well as studies of ecology, reproduction, and movement patterns during flood and burning seasons (Yadav *et al.* 2008, Aryal *et al.* 2012, Tandan *et al.* 2013, Nath and Machary 2015, Nidup *et al.* 2015). Control of the burning season within the range of the Hispid Hare is needed to ensure that suitable habitat is available throughout the year, as well as the development of management plans for the remaining areas of suitable grassland habitat. Forest managers should be encouraged in the fostering of local species of grass and avoid the introduction of alien species for use by camp elephants (Maheswaran 2002). A return to the natural system would help prevent the extirpation of Hispid Hares, as well as other native species (Maheswaran 2002). Local education regarding the status of Hispid Hares is necessary, including educating staff of reserves where the species occurs. Forest guards are often only aware of the Indian Hare (*Lepus nigricollis*) and should be educated in the areas of active preservation of threatened species).

Credits

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Reviewer(s): Smith, A.T.

Contributor(s): Maheswaran, G.

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External Resources

For [Images and External Links to Additional Information](#), please see the Red List website.

Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
4. Grassland -> 4.6. Grassland - Subtropical/Tropical Seasonally Wet/Flooded	-	Suitable	-
5. Wetlands (inland) -> 5.4. Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	-	Suitable	-

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
11. Climate change & severe weather -> 11.4. Storms & flooding	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.1. Shifting agriculture	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.2. Small-holder farming	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.1. Intentional use (species is the target)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.2. Gathering terrestrial plants -> 5.2.4. Motivation Unknown/Unrecorded	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.5. Motivation Unknown/Unrecorded	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.3. Trend Unknown/Unrecorded	Ongoing	-	-	-

	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.1. Unspecified species	Ongoing	- - -
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Action Recovery plan: No
Systematic monitoring scheme: No
In-Place Land/Water Protection and Management
Conservation sites identified: Yes, over entire range
Occur in at least one PA: Yes
Area based regional management plan: No
Invasive species control or prevention: Unknown
In-Place Species Management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-Place Education
Subject to recent education and awareness programmes: No
Included in international legislation: Yes
Subject to any international management/trade controls: Yes

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
2. Land/water management -> 2.1. Site/area management
2. Land/water management -> 2.2. Invasive/problematic species control
2. Land/water management -> 2.3. Habitat & natural process restoration
4. Education & awareness -> 4.3. Awareness & communications

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 400-500
Continuing decline in area of occupancy (AOO): Yes
Estimated extent of occurrence (EOO) (km ²): 188316
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Lower elevation limit (m): 100
Upper elevation limit (m): 250
Population
Continuing decline of mature individuals: Yes
Population severely fragmented: Yes
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 3

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