Himalayan Monal (Lophophorus impejanus)

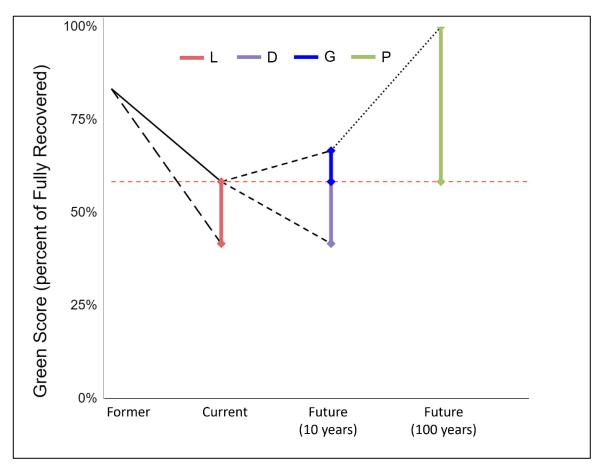


Figure S1. Graphical representation of the conservation metrics based on the Green Scores. Key: Vertical arrows represent the four conservation metrics: L – Conservation Legacy (may not appear if current and counterfactual states are the same); D – Conservation Dependence (may not appear if current and future-without-conservation states are the same); G – Conservation Gain (may not appear if current and future-with-conservation states are the same); P – Recovery Potential (may not appear if current and potential states are the same). Horizontal red dashed line represents the Current Green Score. Solid black line: observed change in the Green Score of the species (ignore it if "Former" state is not specified). Long-dashed black line: (counterfactual) past

change expected in the absence of past conservation efforts. Dashed black lines: future scenarios of change expected with and without current and future conservation efforts. Dotted black line: long-term potential change expected with future conservation innovation and efforts.

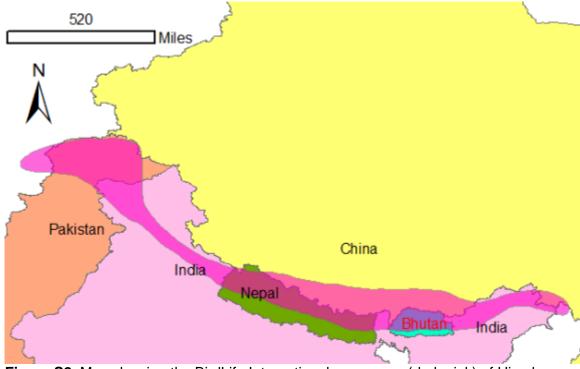


Figure S2. Map showing the BirdLife International range map (dark pink) of Himalayan Monal (*Lophophorus impejanus*).

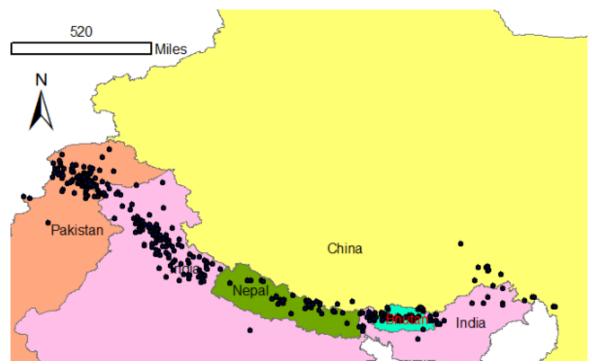


Figure S3. Map showing the geographical distribution of Himalayan Monal (*Lophophorus impejanus*) based on GalliForm: Eurasian Database v 1.0. Black dots on map show the point locality records of Himalayan Monal.

Table S1. Conservation Actions (<u>list of action codes</u>).

Classification	Full Description	Past actions (no longer occurring)	Current actions	Actions planned within 10 years	Actions that could be implemented in the long-term aspiration scenario
1.1	1.1 Land/water protection: Site/area protection		Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.
1.2	1.2 Land/water protection: Resource & habitat protection				
2.1	2.1 Land/water management: Site/area management		Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.
2.2	2.2 Land/water management: Invasive/problematic species control				
2.3	2.3 Land/water management: Habitat & natural process restoration				
3.1.1	3.1.1 Harvest management				
3.1.2.	3.1.2. Trade management				
3.1.3	3.1.3 Limiting population growth				
3.2	3.2 Species recovery				
3.3.1	3.3.1 Species re-introduction: Reintroduction				
3.3.2	3.3.2 Species re-introduction: Benign introduction				_

Classification	Full Description	Past actions (no longer occurring)	Current actions	Actions planned within 10 years	Actions that could be implemented in the long-term aspiration scenario
3.4.1	3.4.1 <i>Ex situ</i> conservation: Captive breeding/artificial propagation	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.
3.4.2	3.4.2 <i>Ex situ</i> conservation: Genome resource bank				
4.1	4.1 Education and Awareness: Formal education				
4.2	4.2 Education and Awareness: Training				
4.3	4.3 Education and Awareness: Awareness & communications				
5.1.1	5.1.1 Legislation: International level		Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.	Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.
5.1.2	5.1.2 Legislation: National level		India, China, and Myanmar; Nepal.	India, China, and Myanmar; Nepal.	India, China, and Myanmar; Nepal; Bhutan; Pakistan and Afghanistan.
5.1.3	5.1.3 Legislation: Sub- national level				
5.1.4	5.1.4 Legislation: Scale unspecified				
5.2	5.2 Policies and regulations				

	Full Description	Past actions (no longer occurring)	Current actions	Actions planned within 10 years	Actions that could be implemented in the long-term aspiration scenario
5.3	5.3 Private sector standards& codes				Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.
5.4.1	5.4.1 Compliance and enforcement: International level				
5.4.2	5.4.2 Compliance and enforcement: National level				Nepal; India, China, and Myanmar; Bhutan; Pakistan and Afghanistan.
5.4.3	5.4.3 Compliance and enforcement: Sub-national level				-
5.4.4	5.4.4 Compliance and enforcement: Scale unspecified				
6.1	6.1 Livelihood, economic & other incentives: Linked enterprises & livelihood alternatives				
6.2.	6.2. Livelihood, economic & other incentives: Substitution				
6.3	6.3 Livelihood, economic & other incentives: Market forces				
6.4	6.4 Livelihood, economic & other incentives: Conservation payments				

Classification	Full Description	Past actions (no longer occurring)	Current actions	Actions planned within 10 years	Actions that could be implemented in the long-term aspiration scenario
6.5	6.5 Livelihood, economic & other incentives: Non-monetary values				

Table S2. Threats (list of $\underline{\text{threat codes}}$).

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
1.1	1.1 Residential & commercial	<u> </u>		•	
	development: Housing & urban areas				
1.2	1.2 Residential & commercial				
	development: Commercial & industrial				
	areas				
1.3	1.3 Residential & commercial				
	development: Tourism & recreation				
	areas				
2.1.1	2.1.1 Agriculture & aquaculture: Annual				
	& perennial non-timber crops: Shifting				
	agriculture				
2.1.2	2.1.2 Agriculture & aquaculture: Annual				
	& perennial non-timber crops: Small-				
	holder farming				
2.1.3	2.1.3 Agriculture & aquaculture: Annual				
	& perennial non-timber crops: Agro-				
	industry farming				
2.1.4	2.1.4 Agriculture & aquaculture: Annual				
	& perennial non-timber crops: Scale				
	Unknown/Unrecorded				
2.2.1	2.2.1 Agriculture & aquaculture: Wood				
	& pulp plantations: Small-holder				
	plantations				
2.2.2	2.2.2 Agriculture & aquaculture: Wood				
	& pulp plantations: Agro-industry				
	plantations				

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
2.2.3	2.2.3 Agriculture & aquaculture: Wood & pulp plantations: Scale Unknown/Unrecorded				
2.3.1	2.3.1 Agriculture & aquaculture: Livestock farming & ranching: Nomadic grazing		India, China, and Myanmar; Pakistan and Afghanistan.	India, China, and Myanmar; Pakistan and Afghanistan.	India, China, and Myanmar; Pakistan and Afghanistan.
2.3.2	2.3.2 Agriculture & aquaculture: Livestock farming & ranching: Small-holder grazing, ranching or farming		<u> </u>		<u> </u>
2.3.3	2.3.3 Agriculture & aquaculture: Livestock farming & ranching: Agroindustry grazing, ranching or farming				
2.3.4	2.3.4 Agriculture & aquaculture: Livestock farming & ranching: Scale Unknown/Unrecorded				
2.4.1	2.4.1 Agriculture & aquaculture: Marine & freshwater aquaculture: Subsistence/artisanal aquaculture				
2.4.2	2.4.2 Agriculture & aquaculture: Marine & freshwater aquaculture: Industrial aquaculture				
2.4.3	2.4.3 Agriculture & aquaculture: Scale Unknown/Unrecorded				
3.1	3.1 Energy production & mining: Oil & gas drilling				
3.2	3.2 Energy production & mining: Mining & quarrying				

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
3.3	3.3 Energy production & mining: Renewable energy	occurring)	Odirent tineats	next to years	Scenario
4.1	4.1 Transportation & service corridors: Roads & railroads				
4.2	4.2 Transportation & service corridors: Utility & service lines				
4.3	4.3 Transportation & service corridors: Shipping lanes				
4.4	4.4 Transportation & service corridors: Flight paths				
5.1.1	5.1.1 Biological resource use: Hunting & collecting terrestrial animals: Intentional use (species being assessed is the target)		India, China, and Myanmar; Bhutan; Pakistan and Afghanistan; Nepal.	India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.	India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.
5.1.2	5.1.2 Biological resource use: Hunting & collecting terrestrial animals: Unintentional effects (species being assessed is not the target)				
5.1.3	5.1.3 Biological resource use: Hunting & collecting terrestrial animals: Persecution/control				
5.1.4	5.1.4 Biological resource use: Hunting & collecting terrestrial animals: Motivation Unknown/Unrecorded		India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.	India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.	India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.
5.2.1	5.2.1 Biological resource use: Gathering terrestrial plants: Intentional				·

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
	use (species being assessed is the target)				
5.2.2	5.2.2 Biological resource use: Gathering terrestrial plants: Unintentional effects (species being assessed is not the target)	India, China and Myanmar.	India, China and Myanmar.	India, China and Myanmar.	India, China and Myanmar.
5.2.3	5.2.3 Biological resource use: Gathering terrestrial plants: Persecution/control				
5.2.4	5.2.4 Biological resource use: Gathering terrestrial plants: Motivation Unknown/Unrecorded				
5.3.1	5.3.1 Biological resource use: Logging & wood harvesting: Intentional use: subsistence/small scale (species being assessed is the target [harvest]				
5.3.2	5.3.2 Biological resource use: Logging & wood harvesting: Intentional use: large scale (species being assessed is the target)[harvest]				
5.3.3	5.3.3 Biological resource use: Logging & wood harvesting: Unintentional effects: subsistence/small scale (species being assessed is not the target)[harvest]				
5.3.4	5.3.4 Biological resource use: Logging & wood harvesting: Unintentional		India, China, and Myanmar; Pakistan	India, China, and Myanmar; Pakistan	India, China, and Myanmar; Nepal; Pakistan and

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
	effects: large scale (species being		and Afghanistan,	and Afghanistan, Bhutan; Nepal.	Afghanistan,
5.3.5	assessed is not the target)[harvest] 5.3.5 Biological resource use: Logging & wood harvesting: Motivation Unknown/Unrecorded		Bhutan; Nepal.	briutari, Nepai.	Bhutan; Nepal.
5.4.1	5.4.1 Biological resource use: Fishing & harvesting aquatic resources: Intentional use: subsistence/small scale (species being assessed is the target)[harvest]				
5.4.2	5.4.2 Biological resource use: Fishing & harvesting aquatic resources: Intentional use: large scale (species being assessed is the target)[harvest]				
5.4.3	5.4.3 Biological resource use: Fishing & harvesting aquatic resources: Unintentional effects: subsistence/small scale (species being assessed is not the target)[harvest]				
5.4.4	5.4.4 Biological resource use: Fishing & harvesting aquatic resources: Unintentional effects: large scale (species being assessed is not the target)[harvest]				
5.4.5	5.4.5 Biological resource use: Fishing & harvesting aquatic resources: Persecution/control				

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
5.4.6	5.4.6 Biological resource use: Fishing & harvesting aquatic resources: Motivation Unknown/Unrecorded	3,			
6.1	6.1 Human intrusions & disturbance: Recreational activities				
6.2	6.2 Human intrusions & disturbance: War, civil unrest & military exercises				
6.3	6.3 Human intrusions & disturbance: Work & other activities				
7.1.1	7.1.1 Natural system modifications: Fire & fire suppression: Increase in fire frequency/intensity				
7.1.2	7.1.2 Natural system modifications: Fire & fire suppression: Suppression in fire frequency/intensity				
7.1.3	7.1.3 Natural system modifications: Fire & fire suppression: Trend Unknown/Unrecorded				
7.2.1	7.2.1 Natural system modifications: Dams & water management/use: Abstraction of surface water (domestic use)				
7.2.2	7.2.2 Natural system modifications: Dams & water management/use: Abstraction of surface water (commercial use)				
7.2.3	7.2.3 Natural system modifications: Dams & water management/use:				

Classification	Full Description Abstraction of surface water	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
	(agricultural use)				
7.2.4	7.2.4 Natural system modifications: Dams & water management/use: Abstraction of surface water (unknown use)				
7.2.5	7.2.5 Natural system modifications: Dams & water management/use: Abstraction of ground water (domestic use)				
7.2.6	7.2.6 Natural system modifications: Dams & water management/use: Abstraction of ground water (commercial use)				
7.2.7	7.2.7 Natural system modifications: Dams & water management/use: Abstraction of ground water (agricultural use)				
7.2.8	7.2.8 Natural system modifications: Dams & water management/use: Abstraction of ground water (unknown use)				
7.2.9	7.2.9 Natural system modifications: Dams & water management/use: Small dams				
7.2.10	7.2.10 Natural system modifications: Dams & water management/use: Large dams				

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
7.2.11	7.2.11 Natural system modifications: Dams & water management/use: Dams (size unknown)		India, China and Myanmar.	India, China and Myanmar.	India, China and Myanmar.
7.3	7.3 Natural system modifications: Other ecosystem modifications				
8.1.1	8.1.1 Invasive & other problematic species, genes & diseases: Invasive non-native/alien species/diseases: Unspecified species				
8.1.2	8.1.2 Invasive & other problematic species, genes & diseases: Invasive non-native/alien species/diseases: Named species				
8.2.1	8.2.1 Invasive & other problematic species, genes & diseases: Problematic native species/diseases: Unspecified species				
8.2.2	8.2.2 Invasive & other problematic species, genes & diseases: Problematic native species/diseases: Named species				
8.3	8.3 Invasive & other problematic species, genes & diseases: Introduced genetic material				
8.4.1	8.4.1 Invasive & other problematic species, genes & diseases: Problematic species/diseases of unknown origin: Unspecified species				

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
8.4.2	8.4.2 Invasive & other problematic species, genes & diseases: Problematic species/diseases of unknown origin: Named species	U		•	
8.5.1	8.5.1 Invasive & other problematic species, genes & diseases: Viral/prion-induced diseases: Unspecified "species" (disease)				
8.5.2	8.5.2 Invasive & other problematic species, genes & diseases: Viral/prion-induced diseases: Named "species" (disease)				
8.6	8.6 Invasive & other problematic species, genes & diseases: Diseases of unknown cause				
9.1.1	9.1.1 Pollution: Domestic & urban waste water: Sewage				
9.1.2	9.1.2 Pollution: Domestic & urban waste water: Run-off				
9.1.3	9.1.3 Pollution: Domestic & urban waste water: Type Unknown/Unrecorded				
9.2.1	9.2.1 Pollution: Industrial & military effluents: Oil spills				
9.2.2	9.2.2 Pollution: Industrial & military effluents: Seepage from mining				
9.2.3	9.2.3 Pollution: Industrial & military effluents: Type Unknown/Unrecorded				

	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
9.3.1	9.3.1 Pollution: Agricultural & forestry effluents: Nutrient loads				
9.3.2	9.3.2 Pollution: Agricultural & forestry effluents: Soil erosion, sedimentation				
9.3.3	9.3.3 Pollution: Agricultural & forestry effluents: Herbicides & pesticides				
9.3.4	9.3.4 Pollution: Agricultural & forestry effluents: Type Unknown/Unrecorded				
9.4	9.4 Pollution: Garbage & solid waste				
9.5.1	9.5.1 Pollution: Air-borne pollutants: Acid rain				
9.5.2	9.5.2 Pollution: Air-borne pollutants: Smog				
9.5.3	9.5.3 Pollution: Air-borne pollutants: Ozone				
9.5.4	9.5.4 Pollution: Air-borne pollutants: Type Unknown/Unrecorded				
9.6.1	9.6.1 Pollution: Excess energy: Light pollution				
9.6.2	9.6.2 Pollution: Excess energy: Thermal pollution				
9.6.3	9.6.3 Pollution: Excess energy: Noise pollution				
9.6.4	9.6.4 Pollution: Excess energy: Type Unknown/Unrecorded				
10.1	10.1 Geological events: Volcanoes				

Classification	Full Description	Past threats (no longer occurring)	Current threats	Threats expected to emerge or continue over next 10 years	Threats that would be relevant in the long-term aspiration scenario
10.2	10.2 Geological events: Earthquakes/tsunamis				
10.3	10.3 Geological events: Avalanches/landslides				
11.1	11.1 Climate change & severe weather: Habitat shifting & alteration			India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.	India, China, and Myanmar; Pakistan and Afghanistan, Bhutan; Nepal.
11.2	11.2 Climate change & severe weather: Droughts				•
11.3	11.3 Climate change & severe weather: Temperature extremes				
11.4	11.4 Climate change & severe weather: Storms & flooding				
11.5	11.5 Climate change & severe weather: Other impacts				
12.1	12.1 Other threat				

References

BirdLife International. 2022. Species factsheet: *Lophophorus impejanus*. Downloaded from http://www.birdlife.org on 4 July 2022.

GALLIFORM: WPA Eurasian Database v 1.0.: 2010, <u>GALLIFORM: WPA Eurasian Database v 1.0. - CORE</u>. Accessed 4 July 2022.

Appendix 1. Assessor Self-Review

- Disclose any potential conflicts of interest which could bias the assessment.
 None
- 2. Is there any discrepancy between this assessment and the Red List assessment for the species? If so, comment on the likely reason for this discrepancy.

No

3. Review the impact that you assigned to the various threats and conservation actions. Would the trajectory of the species be very different if other choices were made? If so, review your justification for these choices. If appropriate, widen the bounds on tabs 4 and 5-8 (change the lower and upper plausible values) to reflect the uncertainty introduced by the possibility of these other choices. How, if at all, did this review question cause this assessment to change? If no changes were needed, please write "no changes".

No