

National Mission on Himalayan Studies (NMHS)
HIMALAYAN RESEARCH FELLOWSHIP
 (FORMAT FOR THE HALF YEARLY PROGRESS REPORT)
[Reporting Period: from June 2016 to November 2016]

Name of the Institution/ University:	Wildlife Institute of India
No. of Himalayan Research/Project Associate:	Three
No. of Himalayan Junior Research/Project Fellows:	Ten

Himalayan Research/Associate

H-RAs Profile Description:

S. No.	Name of RA	Date of Joining	Name of the PI	Qualification
1.	Dr. Anjali Uniyal	04 July 2016	Dr. G.S. Rawat	Ph. D.
2.	Dr. Nehru Prabakaran	27 June 2016	Dr. G.S. Rawat	Ph. D.
3.	Dr. Rishi Kumar	01 July 2016	Dr. G.S. Rawat	Ph. D.

Progress Report: To be filled for each HRA in separate row.

RA No.	Research Objectives	Achievements	Addressed Deliverables	Location of Field Site with Details, if any
1.	<ul style="list-style-type: none"> Conservation and sustainable management of land and natural resources 	<ul style="list-style-type: none"> Literature collection done. Reconnaissance survey carried out and intensive study sites identified. Detailed work plan is made and intensive field work is planned. 	Documentation of patterns and processes of land degradation and traditional and innovative restoration practices.	Buffer zone of Dhauladhar Wildlife Sanctuary, North-Western Himalaya (Himachal Pradesh)
2	<ul style="list-style-type: none"> Conservation of genetic resources of RET species 	<ul style="list-style-type: none"> Literature collection done. 	Crop diversity in 4 villages at Muniyari was	Western Himalaya (Pithoragarh District)

	<p>including agro-biodiversity (on- and off-farm best practices)</p> <ul style="list-style-type: none"> • Agriculture vulnerability across the study area 	<ul style="list-style-type: none"> • Reconnaissance survey carried out at four sites in Munsiyari block. • Questionnaire module prepared. Work plan is designed and Intensive study planned from December onwards. 	<p>documented. The model to understand the agriculture vulnerability is under preparation.</p>	<p>Uttarakhand)</p>
3.	<ul style="list-style-type: none"> • Long-term Ecological/ Environmental Monitoring (LTEM) sites established/ investigated/ robust datasets generated along with Indigenous Knowledge Practices (IKP) recorded for the area 	<ul style="list-style-type: none"> • Literature collection was done. • Work plan is in preparation 	<p>Detailed work plan to set up long-term monitoring plots and documenting indigenous knowledge practices is in preparation.</p>	<p>Eastern Himalaya (Sikkim)</p>

Note: A summary report of each project is attached as a .doc file. Spatial information in ArcGis on study sites are provided in .mxd file.

Himalayan Junior Research/Project Fellows

H-JRFs Profile Description:

S. No.	Name of JRF	Date of Joining	Name of the PI	Qualification
1.	Ms. Shagun Thakur	15.09.2016	Dr. K. Ramesh	M .Sc. Environmental Science
2	Ms. Alka Chaudhary	15.09.2016	Dr. G. S. Rawat	M .Sc. Environmental Science
3.	Ms. Meghna Bandyopadhyay	08.06.2016	Dr. K. Ramesh	M .Sc. Environmental Science
4.	Mr. Hussain Saifee Reshmwala	10.06.2016	Dr. Bilal Habib	M .Sc. Environmental Science
5.	Ms. Sonam Priyadarshani	08.06.2016	Dr. G. S. Rawat	M.Tech Environmental Engineering
6.	Ms. Priyanka Kashyap	08.06.2016	Dr. V. P. Uniyal	M .Sc. Environmental Science
7.	Mr. Shuvendu Das	10.06.2016	Dr. V.P. Uniyal	M .Sc. Environmental Science
8.	Ms. Ankita Sinha	08.06.2016	Dr. K. Ramesh	M .Sc. Environmental Science
9.	Mr. Suresh Kumar	15.09.2016	Dr. G. S. Rawat	M. Phil (Botany)
10.	Ms. Anjani Rawat	20.06.2016	Dr. V.P. Uniyal	M .Sc. Environmental

				Science
--	--	--	--	---------

Progress Report: To be filled for each JRF in separate row.

JRF No.	Research Objectives	Achievements	Addressed Deliverable	Location of Demonstration/ Study Site with Details
1.	<ul style="list-style-type: none"> • Mammal-habitat interactions vis-à-vis anthropogenic pressures and climate change • Sustainable use/ conservation of habitat 	<ul style="list-style-type: none"> • Literature collection was done. • Reconnaissance survey was carried out across the study sites. • Work plan is made and intensive study is planned from December 2016. 	Intensive field sites are identified.	Western Himalaya (HP)
2.	<ul style="list-style-type: none"> • Engaging community institutions in sustainable natural resource utilization • Eco-restoration of pastures and grasslands 	<ul style="list-style-type: none"> • Collaborations made with local community (BMC). • Invasive species were removed with community participation at selected sites. 	Collaborations established with Biodiversity Management committee and Mahila mangal dal at the Pilot villages Bans-Maitoli and Gori.	Western Himalayan (UK), Pithoragarh District
3.	<ul style="list-style-type: none"> • A Manual on Good Practices of Natural Resource Management in the region • Impacts of anthropogenic and pressures and climate 	<ul style="list-style-type: none"> • Literature collection was done. • Reconnaissance survey and camera trapping was carried out 	Field work initiated and intensive study sites identified.	Western Himalaya Lesser Himalaya

	change Small carnivores in Riverine habitats	<p>across 20 sites in four forest divisions.</p> <ul style="list-style-type: none"> • Work plan is made and intensive study is planned from January 2016. 		
4.	<ul style="list-style-type: none"> • Climate Change indicators in the region using Red Fox as indicator species 	<ul style="list-style-type: none"> • Literature review was done. • Reconnaissance survey carried out at 6 sites across the trans-Himalayan region of J&K, Himachal Pradesh and Uttarakhand. • 54 dens of Red Fox identified, 700 scat samples are collected for analysis. 	Field sampling at potential study sites is done. Analysis of scat samples and field data is under progress.	Trans-Himalaya
5.	<ul style="list-style-type: none"> • Impacts of anthropogenic pressures and climate change on soil micro flora/soil fungi 	<ul style="list-style-type: none"> • Literature review carried out and a bibliography on soil fungi in IHR is published. • Soil samples collected from 23 sites in Gangotri National Park for analysis. • 22 data loggers have been installed in Open Top Chambers at different sites along elevation gradient in Bhagirathi 	Intensive study sites identified and experimental setups are installed in the study sites. Soil sample analysis is in progress.	Uttarakhand & Sikkim (Bhagirathi & Teesta Valleys)

		basin for monitoring.		
6.	<ul style="list-style-type: none"> Impacts of anthropogenic pressures and climate change on soil micro fauna (Nematodes) 	<ul style="list-style-type: none"> Total of 209 entries of publications on IHR were compiled. 17 soil samples collected from Gangotri valley (3000-4000). Six orders of soil nematodes were reported. 	Intensive study sites identified and experimental setups are installed in the study sites. Soil sample analysis is in progress.	Uttarakhand & Sikkim (Bhagirathi & Teesta Valleys)
7.	<ul style="list-style-type: none"> Status and abundance of Odonata in Bhagirathi and Teesta basins of greater Himalaya 	<ul style="list-style-type: none"> Literature review carried out and a bibliography on Odonata in IHR is published. Preliminary field study recorded 70 species of odonates belonging to 40 genera and 11 families. First time report of 7 species to Uttarakhand, one species to Western Himalaya and one species having a second site record for India. 	Extensive literature collection and preliminary field work was carried out. Intensive study is in progress.	Uttarakhand & Sikkim (Bhagirathi & Teesta Valleys)
8.	<ul style="list-style-type: none"> Conservation and status of riverine avifauna along Bhagirathi valley in Uttarakhand 	<ul style="list-style-type: none"> Literature review done. Reconnaissance survey was carried out at three sites in Bhagirathi basin. 16 bird 	Extensive literature collection and preliminary field work was carried out. Intensive study is in progress.	Uttarakhand (Bhagirathi valley)

		<p>species identified.</p> <ul style="list-style-type: none"> • Intensive study is planned from December onwards. 		
9.	<ul style="list-style-type: none"> • Population status of high value medicinal and aromatic plants for their conservation and management 	<ul style="list-style-type: none"> • Literature review done. • Reconnaissance survey made at four sites in J&K. 40 plant species used by local communities were identified. 	Work plan is designed after a preliminary field survey.	Chenab Valley of Jammu and Kashmir
10.	<ul style="list-style-type: none"> • Awareness and capacity building for monitoring the health of environment 	<ul style="list-style-type: none"> • Literature review done. • Reconnaissance survey made at three sites in Kedarnath Wildlife sanctuary. 	Intensive study sites are identified and field work is in progress.	Kedarnath Wildlife Sanctuary, Uttarakhand

Note: A summary report of each project is attached as a .doc file. Spatial information in ArcGis on study sites are provided in .mxd file.

Summary:

Through NMHS program, 13 fellowships (3 Himalayan Research Associates and 10 Himalayan Research Fellows) were supported at WII. The supported studies cover all three broad geographical regions (Western, Central and Eastern Himalayas) in the Indian Himalayan Region (IHR). Ten studies restricted to either one of the IHR region, whereas three studies attempts to cover two IHR regions. NMHS program designed to be multi-disciplinary, where the individual projects aimed to cover a specific taxa or a local specific environmental crisis. The group of species covered include: Mammals (3 studies); Birds, Soil organisms (Fungi & Nematodes), Insects (Odonata), Medicinal & Aromatic plants (one study each). Other subjects covered include: environmental/ecological monitoring and awareness building; documenting indigenous knowledge and practices; sustainable use of natural resources; agricultural vulnerability to climate change, and; local community participation in habitat restoration.

Research personals for most of the project were recruited during June 2016 and intensive literature review was carried out in each subject area to design and refine the research plan and field methods. After capacity building programs, all the researchers have carried out reconnaissance surveys to understand the field conditions and suitability of research methods. A detailed summary of each project activities and progress is attached.

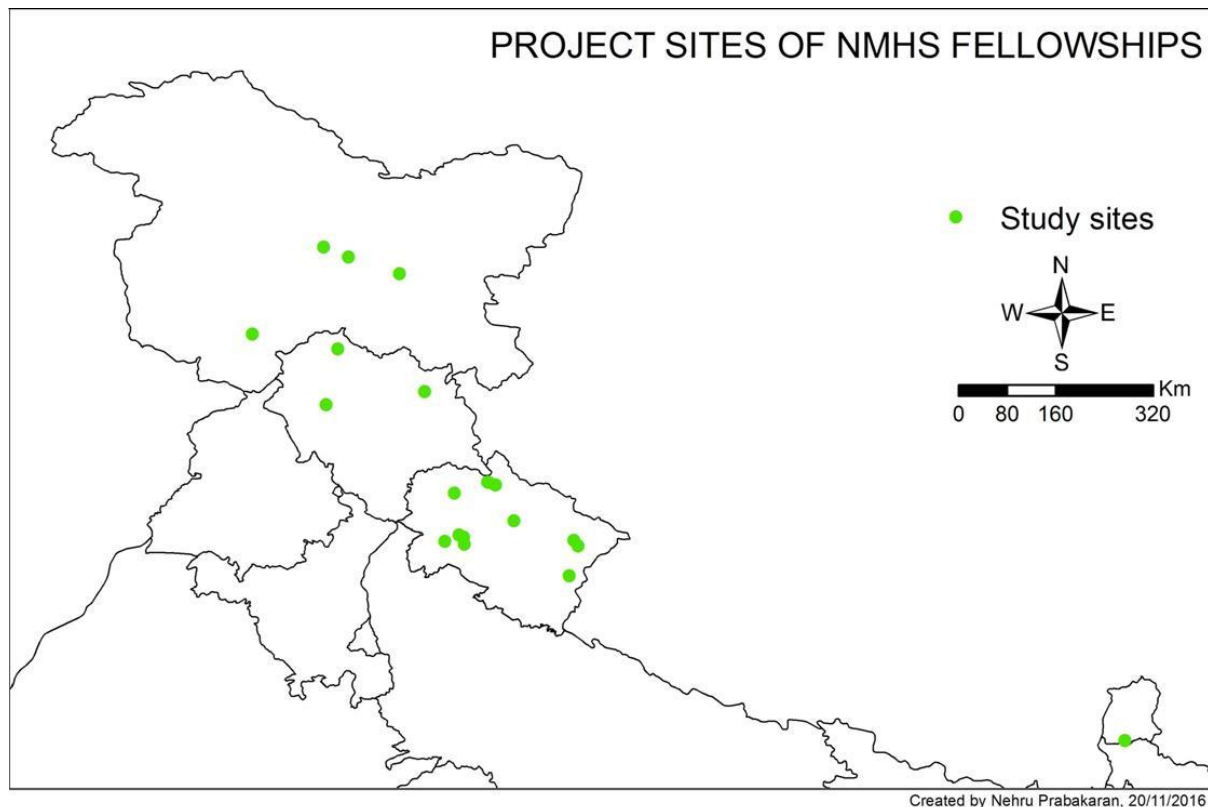


Figure 1: Map showing the distribution of project study sites supported by National Mission on Himalayan Studies Fellowship at Wildlife Institute of India.

(Signature of Registrar/ Head of Department)

Report (hard copy) should be submitted to:

The Nodal Officer, NMHS-PMU
G.B. Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD)
Kosi-Katarmal 263 643, Almora, Uttarakhand

Report (soft copy) should be submitted to:

E-mail: nmhspmu2016@gmail.com