

Bio-data

Name : **Dr. Himmat Singh**

Designation : **Scientist D**

Fathers Name : Late Shr. Ghanshyam **Singh**

Contacts : National Institute e of Malaria Research
Indian Council of Medical Research,
Ministry of Health and Family welfare
Dwarka Sector-8,
New Delhi-110077, India
Email: himmatpawar@gmail.com
Phone: +91-9414242471, 8860349351(o)

Nationality : Indian

Date of Birth : 24/03/1972

Qualifications : **M.Sc. Entomology (1995), Ph. D, Zoology (1999)**

Research Experience: : **23** years,
3 year (2 JRF & 1 SRF DST, at Zoological Survey of India, Jodhpur
14 years Desert Medicine Research Centre, Jodhpur
6 years National Malaria Research Institute, New Delhi

Area of work : Entomology, Surveillance of diseases, Insecticide Resistance, Molecular Biology, Vector biology, Ecology Bio ethics, RS & GIS Technology of Vector borne diseases like Malaria Dengue and Japanese Encephalitis & diagnosis through molecular biology tools like PCR, RT-PCR& HIA

Publications : **50 Research Publications**

Trainings Acquired : **Entomology, Surveillance of diseases, Insecticide, GLP Resistance, Molecular Biology, Vector biology, Ecology Bio ethics, RS & GIS Technology,**

Trainings Imparted : **Vector borne disease and control to** State Entomologists Epidemiologists, MHO, CMOs, Scholars, Sanitary inspectors, Technicians etc working in public Health

Projects : **34 on Malaria, Dengue, Ecology, Entomology, Molecular Biology, Insecticide resistance, Community based studies Molecular biology, GIS/RS, Implementation based etc.**

Fellowships : **3 International 2 National**

Awards : **Medical Entomology, SOMA, 2019**

Patents/Innovation : Applied for 1 patent on Cellulose bases ovitrap substrate to ICMR (2014)
Innovative “*Tanka lid*” for mosquito proofing in western Rajasthan

Recognized Guide From : Kumanu University, Nainital, Uttrakhand
Magdh University, Bihar
Guru Gobind **Singh** Indraprastha University, Delhi
Jai Narain Vyas University, Jodhpur

List of Publications

1. H **Singh**, Om P **Singh**, Nasreen Akhtar, Gunjan Sharma, Nivedita Gupta Neena Valecha 2019 First report on the transmission of Zika virus by *Aedes (Stegomyia) aegypti* (L.) (Diptera: Culicidae) during the 2018-Zika-outbreak in India. *Acta Tropica* Volume 199, November 2019, 105114. <https://doi.org/10.1016/j.actatropica.2019.105114>.
2. **Singh** H, Gupta SK, Vikram K, Saxena R, Srivastava A and Nagpal B.N. 2019 Sustainable Control of malaria employing *Gambusia* fishes as biological control in Jalore and Barmer districts of Western Rajasthan. *J Vector Borne Dis* (Accepted)
3. Vikram K, Gupta SK, Nagpal BN, Saxena R, **Singh** H, NR Tuli, Aruna Srivastava and Neena Valecha. 2019. Co-distribution of dengue and chikungunya virus in *Aedes* mosquitoes of Delhi, India *Journal of Vectorborne Diseases*. (Accepted)
4. Gupta SK, Saxena R, Vikram K, **Singh** H, Srivastava A, Nagpal BN, Tuli NR, Joshi MC and Neena Valecha. Retrospective spatial statistical analysis of dengue cases in Delhi. *Dengue Bulletin* (Accepted)
5. Babita Bisht, Roop Kumari, BN Nagpal, **Singh** H, Sanjeev Kumar Gupta, AK Bansal and NR Tuli 2019. Influence of environmental factors on dengue fever in Delhi *International Journal of Mosquito Research* 6(2)A :11-18
6. Sogan N, Kapoor N, **Singh** H, Kala S, Nagpal BN. 2018. Larvicidal activity of *Ricinus communis* extract against mosquitoes. *J Vector Borne Dis*. 55(4) 284-290.
7. Babita Bisht , Roop Kumari, **Singh** H, B.N. Nagpal 2018. Study on Association between Entomological indices, *Aedes* breeding and container types in City Zone of North Municipal Corporation of Delhi for targeted approach towards Prevention and Control of Dengue. *Dengue Bulletin* (40) 100-113
8. Sanjeev Kumar Gupta, Poonam Saroha, a Kumar Vikram, NR Tuli, Himmat **Singh**, Rekha Saxena, Aruna Srivastava, BN Nagpal, MC Joshi 2018 A geostatistical study to prioritize dengue-affected areas for implementation of effective control by municipal corporations of Delhi, India *Dengue Bulletin*, (40) 152-163
9. Babita Bisht, Roop Kumari, BN Nagpal, Himmat **Singh**, Kumar Vikram, Sanjay Sinha, NR Tuli 2018. Knowledge, attitude and practices for prevention and control of dengue fever among community members in North Delhi Municipal Corporation, *Dengue Bulletin* (40) 137-152
10. N Mishra, NK Shrivastava, A Nayak, H **Singh** 2018 *Wolbachia*: A prospective solution to mosquito borne diseases, *International Journal of Mosquito Research* 5 (2), 1-8
11. B.N. Nagpal, Sanjeev K Gupta, Arshad Shamim, Kumar Vikram, Anushrita, Himmat **Singh**, Rekha Saxena, V.P. Singh, Aruna Srivastava, Babita Bisht, N.R. Tuli, R.N. Singh and Neena Valecha. 2017 Identification of key containers of *Aedes* breeding – A cornerstone to control strategies of dengue in Delhi, India *Dengue Bulletin* December Issue vol 39: 87-99
12. B. N. Nagpal , Sanjeev Kumar Gupta, Arshad Shamim, Kumar Vikram, Aruna Srivastava, N. R. Tuli, Rekha Saxena, Himmat **Singh**, V. P. Singh, V. N. Bhagat, N. K. Yadav, Neena Valecha. 2016 Control of *Aedes aegypti* Breeding: A Novel Intervention for Prevention and Control of Dengue in an Endemic Zone of Delhi, India *PLOS One* <https://doi.org/10.1371/journal.pone.0166768>
13. Alka Rani, Abhishek Gupta, Swati Sinha, Bhupender Nath Nagpal, Himmat **Singh**, Kumar Vikram, Sanjeev Kumar Gupta, Sucheta Shah Mehta, Aruna Srivastava, Anup Anvikar Rekha Saxena and Neena Valecha 2017 Malaria epidemiology in changing scenario and anopheles vector in Ghaziabad district, Uttar Pradesh, India, *International Journal of Mosquito Research* Vol 4 (6) 56-64
14. P Genie Murao, Himmat **Singh** 2017. Study of stress on caged phasianids in the national zoological park, New Delhi, *International Journal of Zoology Studies* 2 (6), 70-74
15. **Singh** H, Nagpal B.N., Kumar Vikram, Aruna Srivastava and Neena Valecha (2015) Constrains in dengue control with special reference to behavior of *Aedes aegypti* *National Journal of Life Science* (Accepted)
16. Vikram Kumar, Nagpal B N, Pande V , Srivastava A, Saxena R; Anvikar A, Das A , **Singh** H, Anushrita . Gupta S K, Tuli N R , Telle O, Yadav N K, Valecha N, Paul R, 2016 An epidemiological study of Dengue in Delhi, India *Acta Tropica*; 153(01): 21-27
17. Vikram Kumar, B N Nagpal, Veena Pande, Aruna Srivastava, Rekha Saxena **Singh** H, Anushrita, Sanjeev K Gupta, N R Tuli, N K Yadav, Richard Paul, Olivier Telle, Neena Valecha, 2015. Comparison of *Ae. aegypti* breeding in

localities of different socio-economic groups of Delhi, India. International Journal of Mosquito Research 2 (2), 83-88

18. Vikram Kumar, Nagpal B N, Veena Pande, Aruna Srivastava, Sanjeev K Gupta, Anushrita, Singh V P, **Singh H**, Rekha Saxena, N R Tuli, N K Yadav, Richard Paul, Neena Valecha, Olivier Telle Detection of Dengue virus in individual *Aedes aegypti* mosquito in Delhi, India JVBD 52 (2); 129-33
19. B.N. Nagpal, Sanjeev Kumar Gupta, Arshad Shamim, Kumar Vikram, Anushrita, Himmat **Singh**, Rekha Saxena, V.P. **Singh**, Aruna Srivastava, Babita Bisht, N.R. Tuli, R.N. Singh and Neena Valecha 2016. Identification of key containers of *Aedes* breeding – A cornerstone to control strategies of dengue in Delhi, India Dengue Bulletin 39:87-99.
20. **Singh H**, 2016 Asian Woollyneck Stork *Ciconia episcopus* breeding in western Rajasthan, India BirdingASIA 24, 130-131
21. R Kumawat, KV **Singh**, SK Bansal, H **Singh**, (2014) Use of different coloured ovitraps in the surveillance of *Aedes* mosquitoes in an arid-urban area of western Rajasthan, India. Journal of vector borne diseases 51 (4), 320
22. **Singh**, H., Marwal, R., Mishra, A., & **Singh**, K.V., 2014. Predatory habits of *Lutzia* (*Metalutzia*) *fuscana* (Wiedmann) (Diptera: Culicidae) in the arid Environments of Jodhpur, western Rajasthan, India, Arthropods, 2014, 3(1): 70-79
23. **Singh**, H., Marwal, R., Mishra, A., & **Singh**, K.V., 2013. Invasion of the predatory mosquito *Culex* (*Lutzia*) *fuscans* in the western desert parts of Rajasthan, India. Polish Journal of Entomology/Polskie Pismo Entomologiczne, 82(1), 49-58
24. Marwal, R., **Singh**, H., Mishra, A., 2013 "Study on ovipositioning preference of *Aedes aegypti*" proceedings of 12th International Conference on Vector and Vector borne diseases, Udaipur. pp 123-126
25. Joshi V, Angel ,B, Purohit A **Singh H**, et al. 2012 Epidemic of Pandemic Influenza A (H1N1) 2009 in western Rajasthan: Report of prevalence of test positive cases. Indian Journal of Medical Research. March 2012: 135:437 – 438
26. Yadav S.P., Anand P.K. and **Singh H.**, 2011 Awareness and Practices about Silicosis among the Sandstone Quarry Workers in Desert Ecology of Jodhpur, Rajasthan, India Journal of Human Ecology 33(3), pp 191-196.
27. Anand PK, Swarn L, Yadav SP & **Singh H**. 2011 Disease dynamics, distribution and surveillance of malaria in arid ecology of Jodhpur, Rajasthan, India during 2002 to 2006. Journal of Public Health and Epidemiology. 3(7): 301-307.
28. **Singh H**, 2010. Invasion of garden species in the Thar Desert. In “Impact of Climate Change on Biodiversity and Challenges in the Thar Desert” Golden Jubilee of DRS,ZSI pp 277-288.
29. Yadav S P, **Singh H**, Anand PK & Yadav S. 2010. Changing scenario of Malaria in the Thar Desert, India. In “Impact of Climate Change on Biodiversity and Challenges in the Thar Desert” Golden Jubilee of DRS,ZSI pp 351-361
30. Sharma K., Angel B, **Singh H**, Purohit A. & Joshi V., 2008, Entomological studies for surveillance and prevention of dengue in Arid and Semi-Arid District of Rajasthan India. Journal of Vector Borne. Diseases. Vol. (45):140-149
31. Joshi V, Sharma R. C., Sharma Y, Adha S, Sharma K, **Singh H**, Purohit A , **Singhi M**, 2006. Importance of Socioeconomic Status and Tree Holes in Distribution of *Aedes* Mosquitoes (Diptera: Culicidae) in Jodhpur, Rajasthan, India. Journal of Medical Entomology, 43(2): 330 – 336
32. Joshi V, Sharma R C, Sharma Y, Adha S, **Singh H** and **Singhi M**, 2006. Introduction, Transmission and Aggravation of Malaria in a desert ecosystem of Rajasthan, India, J Vect Borne Dis, 43 :179–185
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34. Dam P.K., Sharma R.C., Joshi V., Purohit A. and **Singh H**. 2006, Tribal Ethnomedicine against certain selected health problems in Banswara district of Rajasthan, Proceeding of conference of NIPCCD, Guwahati. From 28th October, 2005
35. **Singh H**. 2005 “Sighting of Sirkeer Malkoha (*Phaenicophaeus leschenaultii*) in the Thar Desert” Zoo print. Pp-1903

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37. Prakash I. and **Singh**, H. 1999. Small mammal diversity and ecology in Aravalli montane ecosystem in southeastern Rajasthan. *Proceeding of National Academy of Science, India.* 70(B), III & IV: 211-227
38. Prakash, I. and **Singh**, H. 1999. Food of Shrew *Suncus murinus* inhabiting hilly tracts of south and southeastern Rajasthan. *Proceeding of National Academy of Science, India.* 69(B), III & IV: 245-250.
39. **Singh**, H. 2004. Indian *Pitta brachyura* in the Thar Desert. *Journal of Bombay Natural History Society* 101(2):Pp 319
40. Vyas, R. and **Singh**, H. 1998. Short Tailed Agama in Southeastern Rajasthan. *Journal of Bombay Natural History Society.* 95: (348-349)
41. Prakash, I. and **Singh**, H. 1998. Distribution of three rodent species in hilly tracts of Rajasthan. *Journal of Bombay Natural History Society.* 96(3): 465.
42. Vyas, R. and **Singh**, H. 2002. Checklist Birds of Gandhisagar Sanctuary. Zoo print. Pp-1525-1529
43. Prakash, I., **Singh**, P. and **Singh** H., 1997, Bush Rat in Aravallis. *Rodent Newl.* 21 (1-2): 1.
44. Prakash I. and **Singh** H. 1998. Spot distribution of three rodents in hilly tracts of Rajasthan *Rodent Newl.* 22(3-4): 8
45. **Singh**, H. "Avian Diversity of Wetlands in and Around Jodhpur, Western Rajasthan." *Aquatic Ecosystem: Biodiversity, Ecology and Conservation.* Springer India, 2015. 287-306
46. **Singh** H. 2013 "Impact of altered land use pattern on small mammalian diversity of hilly-tracts of Rajasthan", *India Faunal Heritage of Rajasthan: Past, Present and future*, Springerlink, Springer Berlin Heidelberg Publication Vol (2) 79-92.
47. **Singh** H. 2011 "Reasons for Mortality of *Prosopis cineraria*" in *Khejri & Man Sagar : Our Life* pp 12-13
48. **Singh** H. 2009 "Changing avian diversity of Jodhpur, Western Rajasthan" Chapter in "Faunal Ecology and Conservation of the Great Indian Desert" eds. by Sivaperiman, C. Springerlink, Springer Berlin Heidelberg publication pp: 99-112.
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50. **Singh** H. 2002. "Birds of Sardarsmand and Balsamand lake palace" published by Bharat printer, Jodhpur, Rajasthan.pp:1-52

Extramural Funded Project Details Projects since 2015

S. No.	Project and Duration	Funding Agencies R& D projects (ICMR/DST/DBT etc) and Amount	Level of Participation		
			PI	Co-PI	Others
1	Pilot scale bio-ecological studies on <i>Aedes aegypti</i> population in Delhi towards developing an alternate dengue/ chikungunya control strategy (2018-2019)	ICMR (INR 40,44,000/-)	PI		
2	Vector Surveillance of Zika/JE in selected high risk areas of India a coordinated project by VCRC, funded by ICMR.(2017-2019)	ICMR (INR 27,96,000/-)	PI		
3	Vector Surveillance of Zika/JE in selected high risk areas of India a coordinated project by VCRC, funded by ICMR.(2016-2017)	ICMR (INR 26,00,000/-)	PI		
4	Feasibility of replacing modified lid of the "Tankas" (underground tanks) to reduce vector density and malaria in western Rajasthan: An intervention Study 2017-2018	ICMR (INR 5,00,000/-)	PI		
5	Health Impact Assessment of Narmada Basin Dams and Resettlement & Rehabilitation Colonies in MP:	Narmda Valley Development Authority NVDA		Co-PI	

	Phase III (2016-2021)	(6,61,27,000/-)			
6	Studies on Health Impact Assessment of Sardar Sarovar Project (SSP) in Command Areas of Rajasthan (2014-2016)	Narmda Valley Development Authority NVDA (77,18,000/-)		Co-PI	
7	Training on Advance Techniques in surveillance and control of Vector borne diseases. Funded By DHR	DHR (INR 40,44,000/-)		Co-PI	
8	Impact of Irrigation change on prevalence of Malaria in arid and non arid parts of Rajasthan.	DST Climate Change & Health Network, (INR 30,00,000/-)		Co-PI	
9	Mapping of mosquitoes breeding habitats and locations of vertebrate host in North & South parts of Rajasthan State prone to emergence of Japanese encephalitis virus using space Technology (RS & GIS) (2013-2015)	Vector Science Forum, ICMR (INR 45,00,000/-)		Co-PI	
10	Surveillance of pyrethroid resistance in important malaria vectors of western Rajasthan and studies on genetic and biochemical mechanisms of pyrethroid resistance in <i>An. stephensi</i>	Vector Science Forum, ICMR (INR 26,00,000/-)		Co-PI	
11	Development of Molecular markers for the identification of Biological forms of <i>Anopheles stephensi</i> prevalent in arid areas of Rajasthan.	MOEF (INR 30,00,000/-)		Co-PI	
12	Development of Molecular and genetic marker of vector competence of mosquitoes species for dengue virus. (2005 -2008)	DST (INR 18,00,000/-)		Co-PI	
13	Study on Dengue and Dengue Hemorrhagic Fever in Rajasthan, India". (2003-2005)	TDR/WHO (INR 75,00,000/-)		Co-PI	
14	Identification and classification of larval breeding habitat for determining adult population estimates as warning tools for the future malaria epidemics in the Thar Desert using RS and GIS.	WHO (INR 40,00,000/-)		Co-PI	
15	Development and demonstration of a surveillance design for control of dengue vectors in Jodhpur, using GIS" –2005 as Co-investigator	WHO (INR 19,00,000/-)		Co-PI	

