



**National Bureau of Fish Genetic Resources**  
(Indian Council of Agricultural Research)  
Canal Ring Road, Dilkusha PO, Lucknow-226002, India



**Name** Dr. Mahender Singh  
**Designation** Scientist (Senior Scale)  
**Date of birth** 29-01-1974  
**Professional experience** 11 years  
**Qualification** MSc. Biotechnology  
PhD



**Current area of Research** DNA Barcoding; Population Genetics; Functional Genomics

**Area of Research Expertise**

- Mitochondrial DNA & DNA Barcoding
- Population Genetics & Stock structure analysis
- Transcriptome analysis & Functional Genomics
- Phylogenetics
- Bioinformatics
- Comet Assay or Single Cell Gel Electrophoresis
- Genotoxicity
- Cytogenetics

**Awards/ Recognitions**

**Publication (no.)**

- **Research papers** 10
- **Reviews**
- **Books**
- **Book Chapters**
- **Popular articles**
- **Others** 3 in Training manuals

**Important Research Publications**

Lakra W S, **Verma M S**, Goswami M, Lal K K, Mohindra V, Punia P, Gopalakrishnan A, Singh K V, Ward R D and Hebert P (2010) "DNA Barcoding of Indian Marine Fishes", Revised Accepted Molecular Ecology Resources. Article published online: 16 JUL 2010 DOI: 10.1111/j.1755-0998.2010.02894.x

Goswami M, Lakra W S, **Verma M S** and Nagpure N S Molecular identification and Characterisation of Channidae fish species. 10th International Symposium on Genetics in Aquaculture (ISGA 2009) June 22-26, 2009 Bangkok, Thailand.

Lakra W S, **Verma M S**, Gopalakrishnan A, Lal K K, Mohindra V, Punia P, Soundararjan R, Goswami M, Singh K V and Ayyappan S "DNA Barcoding of Indian fishes", National Conference on "Aquatic Genetic Resources", National Bureau of Fish Genetic Resources,

Lucknow, April 26-27, 2008.

Jaiswal Malhotra N, Singh H R, **Verma M S**, Lakra W S, Malakar A K, Sharma S C and Malhotra S K, "Barcode of life to demonstrate fish helminth genetic transformations of evolutionary potential", National Conference on "Aquatic Genetic Resources", National Bureau of Fish Genetic Resources, Lucknow, April 26-27, 2008.

**Verma M S**, Lakra W S, Bhaugana S N and Kartavtsev Y "Molecular Phylogeny of Glyptothorax species based on cytochrome b (cyt b) sequences" communicated in Journal of Aquatic Biology.

Pandey S, Nagpure N S, Kumar R, Sharma S, Srivastava S K and **Verma M S** (2006) Genotoxicity Evaluation of Acute Doses of Endosulfan to Fresh Water Teleost *Channa punctatus* (Bloch) By Alkaline Single Cell Gel Electrophoresis. *Ecotoxicology and environmental Safety* **65(1)**: 56-61.

Lakra W S, **Verma M S**, Goswami M, Gopalakrishnan A, Lal K K, Mohindra V, Punia P, 2006. DNA Barcoding of Indian Marine Fishes. Paper presented at 7th Asia Pacific Conference on Marine Biotechnology. Kochi, 2006.

Pandey S, Kumar R, Sharma S, Nagpure N S, Srivastava S K and **Verma M S** (2005). Acute toxicity bioassays of Mercuric Chloride and Malathion on air breathing fish *Channa punctatus* (Bloch). *Ecotoxicology and environmental Safety* **61(1)**: 114-120.

Srivastava S K, Kushwaha B, Nagpure N S, Pandey S, Kumar R and **Verma M S** (2005) Genotoxicity studies of *Cyprinus carpio* of River Yamuna. *Indian J. Fisheries* **52(2)**:235-239.

Sharma S, Pandey S, Kumar R, Nagpure N S, Srivastava S K and **Verma M S** (2005). Comet Assay- A sensitive tool for genotoxic nanlysis in fishes. *Fishing Chimes* **25(3)**:10-11.

Nagpure N S, Kumar R, Srivastava S K, Gopalakrishnan A, **Verma M S** and Basheer V S (2005). Cytogenetic studies of fish species *Horabagrus nigricollaris*, *Puntius denisonii* and *Puntius sarana subnasutus* endemic to the Western Ghats. *The Nucleus*, **47(3)**:143-148.

Nagpure N S, Kumar R, **Verma M S**, Srivastava S K, Mercy Anna T V, Gopalakrishnan A and Baheer V S (2004). Characterisation of fish, *Pristolepis marginata* Jerdon using Cytogenetic markers. *J.Cytol. Genet.* **5 (NS)**: 167-172.

Pandey S, Nagpure N S, Kumar R, Srivastava S K, Sharma S and **Verma M S** (2004): Importance Of Genotoxic Studies For Sustainable Fish Production. In The third Indian fisheries science congress, New Delhi, 4-6 November, 2004.

Nagpure N S, Kushwaha B, Srivastava S K, Kumar R, Gopalakrishnan A, Basheer V S, and **Verma M S** (2003). Charaterisatiopn of three endemic fish species from Western ghats using Cytogenetic markers. *The Nucleus*, **46(3)**:110-114.

Kushwaha B, Nagpure N S, Srivastava S K, Kumar R and **Verma M S**, (2002). Variation of micronuclei in peripheral blood cells of *Channa punctatus*. *The Indian Journal of Animal Sciences* **73(10)**: 1192-1193.