



National Bureau of Fish Genetic Resources

(Indian Council of Agricultural Research)

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Name Dr. Naresh Sahebrao Nagpure
Designation Principal Scientist & Head, Division of Molecular Biology & Biotechnology



Date of birth 7 November 1964

Professional experience 19 Years

Qualification MVSc & PhD

Current area of Research Fish genomics, molecular cytogenetics, genotoxicity and fish bioinformatics.

Area of Research Expertise

- Assessment of mutagenicity & genotoxicity of aquatic pollutants / piscicides in fishes.
- Studies on different stress factors using biochemical assays.
- Studies on expression of selected genes in response to pollutants.
- Cytogenetic characterization of endemic, endangered and commercial fishes for identification of species specific markers.
- Physical mapping of important genes on chromosomes using fluorescent *in situ* hybridization (FISH).
- Molecular divergence studies using ribosomal DNA & telomeric repeats
- Fish population genetics studies using rDNA markers for conservation and sustainable utilization of fish genetic resources.
- Development of softwares and genomic databases in fishes.

Awards/ Recognitions Nil

Publication (no.)

- **Research papers:** 61
- **Reviews** 1
- **Books** 2
- **Book Chapters** 2
- **Popular articles** 3
- **Others** Developed Fish Chromosome Search Software

Important Research Publications

Nagpure N S, Kushwaha B, Srivastava S K and Ponniah A G (2000). Comparative Karyomorphology of African catfish *Clarias gariepinus* (Burchell) and Asian catfish *Clarias batrachus* (Linn.) *Chromosome science* **4**: 57-59.

Nagpure N S, Kushwaha B, Srivastava S K, Halder A and Ponniah A G (2002) Comparative chromosome painting in fish using human sex chromosome probes. *Indian Journal of Fisheries* **50 (1)**: 103-106.

- Nagpure N S**, Kumar R, Srivastava S K, Kushwaha B, Singh P J, Gopalakrishnan A, and Basheer V S (2005) A report on high number of chromosomes in three endemic fish species from the Western Ghats of India. *Nucleus* **48 (3)**:165-170.
- 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
- Sharma S, **Nagpure N S**, Kumar R, Pandey S, Srivastava S K, Singh P J and Mathur P K (2007) Studies on genotoxicity of endosulfan in different tissues of fresh water fish *Mystus vittatus* using the comet assay. *Archives of Environmental Contamination and Toxicology* **53**: 617–623.
- Kumar R, Singh P J, **Nagpure N S**, Kushwaha B, Srivastava S K and Lakra W S (2007) A non- invasive technique for rapid extraction of DNA from fish Scales. *Indian Journal of Experimental Biology* **45**: 992-997.
- Ali D, **Nagpure N S**, Kumar S, Kumar R and Kushwaha B (2008) Genotoxicity assessment of acute exposure of chlorpyrifos to freshwater fish *Channa punctatus* (Bloch) using micronucleus assay and alkaline single-cell gel electrophoresis. *Chemosphere* **71**: 1823- 1831.
- Nagpure N S**, Sharma S, Pandey S, Kumar R, Srivastava S K, Verma M S, Kapoor D (2008) Use of comet assay as a sensitive tool for genotoxicity assessment in fishes from Gomti River. *Indian Journal of Fisheries* **53 (3)**:285-288.
- Ali D, **Nagpure N S**, Kumar S, Kumar R, Kushwaha B and Lakra W S (2009) Assessment of genotoxic and mutagenic effects of chlorpyrifos in freshwater fish *Channa punctatus* (Bloch) using micronucleus assay and alkaline single gel electrophoresis. *Food and Chemical Toxicology*. **47**: 650-656.
- Singh M, Kumar R, **Nagpure N S**, Kushwaha B, Gond I and Lakra W S (2009) Chromosomal localization of 18S and 5S rDNA using FISH in the genus *Tor* (Pisces: Cyprinidae) *Genetica* **137(3)**: 245-252.
- Singh M, Kumar R, **Nagpure N S**, Kushwaha B, Gond I & Lakra W S (2009) Extensive NOR site polymorphism in geographically isolated populations of Golden Mahseer, *Tor putitora*. *Genome*. **52(9)**: 783-789.
- Kumar R, **Nagpure N S**, Kushwaha B, Srivastava S K and Lakra W S (2009) Karyotypic diversity and evolution of seven mahseer species (Pisces, Cyprinidae) from India. *Journal of Fish Biology* **75**: 1079-1091.
- Nwani C D, Lakra W S, **Nagpure N S**, Kumar R, Kushwaha B and Srivastava S K (2010) Mutagenic and genotoxic effects of carbosulfan in freshwater fish *Channa punctatus* (Bloch) using micronucleus assay and alkaline single-cell gel electrophoresis. *Food and Chemical Toxicology* **48**: 202-208.
- Lakra W S, Goswami M, Singh A, Mishra P, Gayathri N and **Nagpure N S** (2010) Genetic Characterisation of *Metapaeneus affinis* (H.M.Edwards, 1837) using RAPD markers. *Molecular Biology Report* PMID20221702.
- Singh M, Kumar R, **Nagpure N S**, Kushwaha B, Mani I, Murmu K, Chauhan U K and Lakra W S (2010). Nucleotide sequences and chromosomal localisation of 45S and 5S rDNA in *Neolissochilus hexagonolepis* (Pisces, Cyprinidae) using dual colour FISH. *Zoological Science* **27 (8)**: 70-16.