

DEPARTMENT OF BIOTECHNOLOGY

EXTENSION ACTIVITIES

Session 2016- 2017

We consider three major duties of faculties of Higher Education,

1. Teaching
2. Research, and
3. Extension Activities

Under Extension activities our priority areas are-

- **Programme I**

Screening of prevailing hemoglobinopathy in our society, preferably, Sickle cell Anaemia, and to conduct mass awareness programme to prevent its further spread. Under this extension service we have already established one Sickle cell unit in our department which is serving people without any cost.

In session 2016-2017 we have organized programme at our college and village Thanod of District Durg.



Fig. showing Sickle Cell Anaemia Screening Programme organized at village Thanod & Department of Biotechnology, Govt. V.Y.T. PG. Auto. College, Durg, Chhattisgarh.

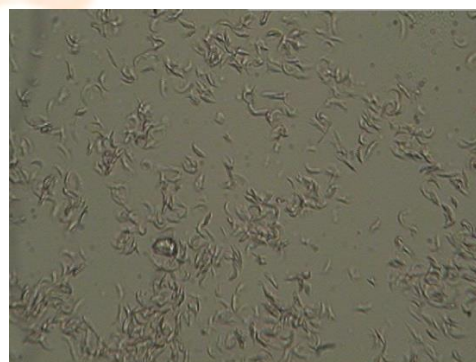


Fig. B Showing sickle-shaped RBCs.

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▪ Programme II

Under this programme we have conducted a mass screening and awareness programme for Glucose-6- phosphate dehydrogenase deficiency from village Thanod and Kawardha. and first time reported three new genetic variants from Chhattisgarh i.e., Mahidol, Chinese and Union for Glucose-6- phosphate dehydrogenase deficiency. We have provided list of restricted drugs to concerned positive patients and aware them about related consequences.



Fig. showing sample collection at Government H.S. School Thanod, Durg Chhattisgarh & Kawardha district of Chhattisgarh.

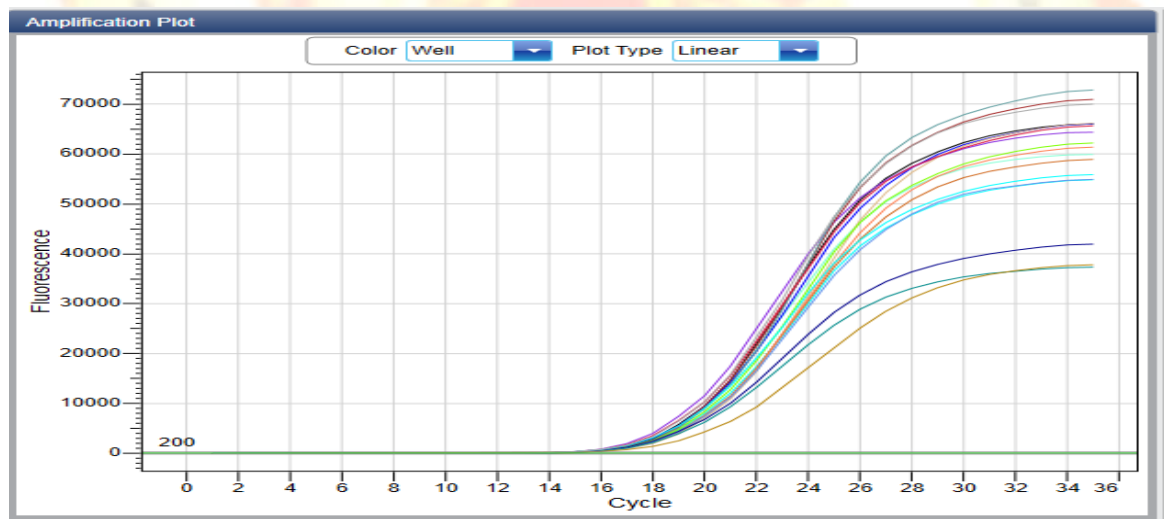


Fig. showing new genes, Mahidol, Union and Chinese have been reported from population of Chhattisgarh in a genomic study.

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▪ Programme III

We are working under our extension programme for detection of heavy metals in our soil and water of the society and its adverse health hazard impact on human population. Under this programme we have detected Arsenic contamination from Ambagharh Chowki of Rajnandgaon District and have correlated its impact on human population. We are also expecting Fluoride contamination from near Orrisa- Chhattisgarh border and presently analysing for that.



Fig. 4 showing Leucomelanosis in human populations of Kaurikasa Village of Chhattisgarh affected with Arsenicosis.

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Programme IV

Our next extension programme was environmental analysis and under this, we have analysed physiochemical and biological studies of water bodies (Rivers), and their related biodiversity from Shankani- Dankani River of Dantewada district.

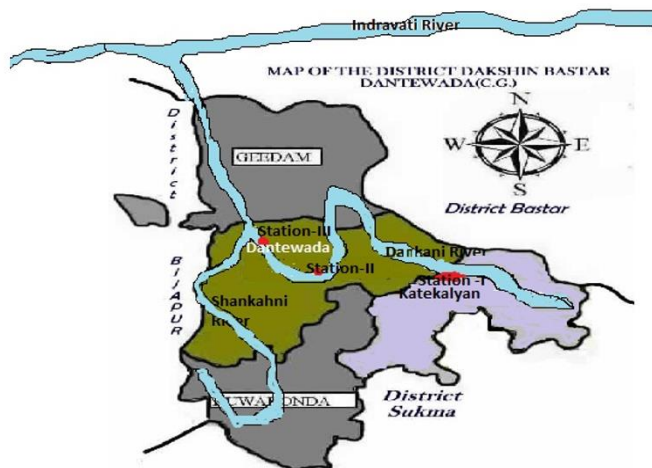


Fig. 5 A Showing Study area for Shankini-Dankani River in Dantewada District of Chhattisgarh

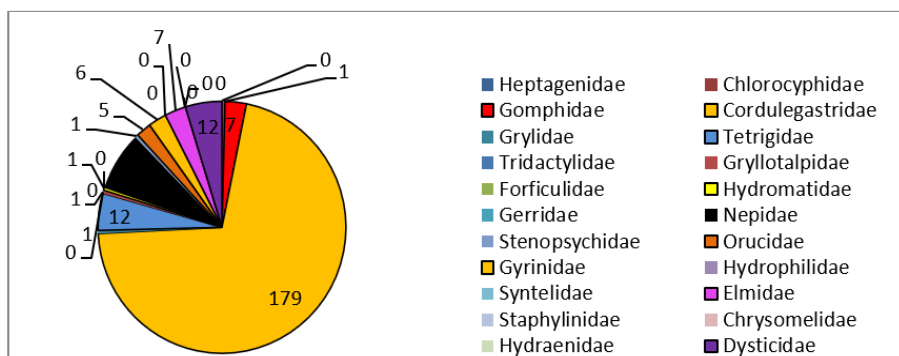


Fig. 5 B Showing Insect Biodiversity from study station- 1 – Kodnar of Shankini-Dankini River.



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