



The Friendly Bacteria of The River Ganges are being Extinct

Why in News?

- Recently, research by scientists of the Wildlife Institute of India has revealed that the friendly bacteria (micro invertebrates) that make the water of the Alaknanda and Bhagirathi (the tributaries of the Ganges) healthful are rapidly becoming extinct due to pollution.

Key Points

- Under the supervision of senior scientist Dr. VP Uniyal, Dr. Nikhil Singh and others examined the friendly bacteria (micro invertebrates) at different places in both the rivers. Under the 'National Mission for Clean Ganga (NMCG)', the scientists conducted studies in the Alaknanda river from Mana (Badrinath) to Devprayag and in the Bhagirathi river from Gomukh to Devprayag.
- Research by scientists has shown that in Bhagirathi river from Gomukh to Devprayag, either friendly bacteria are completely missing or their number is very less. The same situation has been found in the Alaknanda river from Mana to Devprayag. The low occurrence of micro invertebrates in both the rivers indicates that the water quality is not good here.
- The friendly bacteria in both the rivers were studied on the parameters of Ephemeroptera, Plecoptera, Trichoptera (EPT). If the EPT index is found to be 20 percent in the water of a river, then it proves that the water quality is fine. If the EPT index is more than 30%, it means that the water quality is very good. However, at many places in both the rivers, the index of EPT has been found to be less than 15 per cent, which is a worrying aspect.
- In the research done by hydrologists in the past, it has come to the fore that a bacteria called Batriaphos is found in the Ganges water, which keeps on eating the undesirable substances produced by chemical reactions inside the Ganges water. This maintains the purity of Gangajal.
- According to scientists, due to the presence of a lot of sulfur in Gangajal, its purity remains and Gangajal does not get spoiled for a long time.
- Scientific research has also revealed that other rivers of the country are able to clean themselves after a flow of fifteen to twenty km and the dirt found in the rivers gets deposited in the foothills of the rivers, but the Ganges cleans itself in the flow of only one km.
- Along with the all-weather road, the debris of the massive development works being carried out on the banks of the rivers is being dumped directly into the rivers. The dirty water coming out of the houses of the cities situated on the banks of the rivers is being discharged into the rivers without treatment.
- According to scientists, Ganga water has a very high capacity to absorb oxygen from the atmosphere as compared to the water of other rivers. Compared to other rivers, the capacity of digesting dirt in the Ganges is found to be 20 times more.
- It is noteworthy that 140 species of fish including dolphins, 35 species of reptiles and 42 species of mammals are found in the Ganges River. The Bhagirathi, Alaknanda, Mahakali, Karnali, Kosi, Gandak, Sarayu, Yamuna, Son and Mahananda are the main tributaries of the Ganges.

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