



STUDY OF DIATOMS IN DIFFERENT STAGNANT AND RUNNING WATER BODIES IN TRANS YAMUNA AREA OF ALLAHABAD

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ABSTRACT

Diatoms are unicellular infinitesimal green growth; they have a siliceous skeleton (frustule). Little streams and shallow lakes speak to delicate biological systems and appended diatoms can fill in as integrative marker with quick reaction to ecological changes. The present investigation means to examination and distinguishing proof of diatoms, 40 water tests were gathered from 5-distinct destinations of Ponds/Ditches and 3-unique locales of Yamuna River at Allahabad Area. After examination of gathered water tests of various Ponds/Ditches and Yamuna River of Allahabad. Add up to 33 diatoms genera were identified. 22 diatoms are found from gathered water tests of Ponds/Ditches at Allahabad and 11 diatoms genera were found from gathered water tests of Yamuna River locales at Allahabad. Out of which 4 diatoms are normal in lakes/Ditches and 4 diatoms were basic in Yamuna River of Allahabad. In any case, *Cyclotella* was normal in the two Ponds/Ditches and Yamuna River of Allahabad. Diatoms study can be helpful for medico-legitimate, dumping, suffocating cases and other branch, for example, contamination control board, oil and so on.

Keywords: Diatoms, Ponds, Yamuna, Medico-Legal.

INTRODUCTION

Diatoms are relatively omnipresent. They live in amphibian conditions, soils, ice, appended to trees or anyplace with dampness and their remaining parts collect framing diatomite, a sort of delicate sedimentary rocks. They are the predominant marine essential makers in the seas and assume a key job in the carbon cycle and in the expulsion of biogenic silica from surface waters. Diatoms are unicellular green growth with brilliant dark colored photosynthetic shades. They have a siliceous skeleton known as frustule that involves two valves; one covers the other like the two bits of a petri dish. The frustule is ornamented with pores, forms, spines, hyaline zone and different highlights. The size range is between 1 to 2000 micrometer long, and made out of cell divider made basically out of silica (Horner (2002)). Diatoms are formally named having a place with the division Chrysochyta, class Bacillariophyceae. Diatoms may happen in such vast numbers and be very much safeguarded enough to shape silt made as a rule out of diatoms frustule (diatomite's), these stores are of financial advantage being utilized in channels, paints, toothpaste, and numerous other applications.



Materials and Methods

40 water tests were gathered from various locales of Ponds/Ditches (close-by Forestry, adjacent Shepherd, close-by Aroyi Talab, close-by COD Chheeki, close-by Mamma Bhanja Talab and diverse destinations of Yamuna waterway of Allahabad zone (Sangam, Saraswati Ghat, Arail Ghat). Water tests were taken in a clean 1 liter container shut the jug firmly and marked the name of collection site, date of accumulation.

Extraction of diatoms from water tests:

All gathered water test were conveyed to lab for the examination of diatoms. 2% formalin (2-3 drops) was added to water test with the assistance of dropper left it overnight. Next day disposed of the volume of the water from the jug and shake it well and after that emptied it into 500ml receptacle. 2-3 drop of lugol's iodine were included into the measuring utensil and left it medium-term.

Following day gather the silt from the base of measuring glass with the assistance of dropper taken into the tarson tube and centrifuged at 1500rpm for 8 minutes, rehashed these procedure 6-7 times and supernatant were discarded. Garima et al. (2013). Water were flushed from tarson tube and conc nitric corrosive were included and distilled water were included, abandoned it overnight. Next day washed the water and distilled water were included and centrifuged it. Rehashed it multiple times. After that pellets were framed at the base of the tarson tube, the pellets were taken off with the assistance of dropper kept on the magnifying lens slide and dried it on hot plate after that 1 drop of Dpx included the slide and secured with cover slip. Observed the slide under magnifying lens at 40x and 100x (inundation oil). All examples were done likewise process in same way.

CONCLUSION

From this investigation it was presumed that diatoms of various locales or areas were recognized. This investigation help in unraveling the instances of dumping, suffocating by utilizing the database of diatoms, criminological researcher could distinguish from which area these diatoms were found. The diatoms which were found from gathered water test were help in getting the data of the area, this data related the area and corpus, by the assistance of this legal researcher could get the data that whether this is the situation of dumping or suffocating. It is inferred that diatom study can be helpful for medico-legal and other branch, for example, contamination control board, oil office and so forth.

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