

THE TIMES OF INDIA, CHENNAI *
FRIDAY, APRIL 20, 2018

Why a dip off the Marina may be bad for your health

SULLIED WATERS

Sewage from Adyar, Cooum rivers flows into the sea

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| <p>192 samples collected from Marina, Elliot's, Thiruvanniyur, Ennore and Kovalam beaches to study distribution of pathogenic bacteria</p> <p>Permissible limit of bacteria 100CFU/ml (Colony Forming Units)</p> | <p>March to September (Dry season)</p> <p>> Highest at Marina 4 lakh CFU /ml including fecal coliforms like E Coli</p> <p>> Elliot's, Thiruvanniyur, Ennore, Kovalam beaches 1000 or lower CFU/ml</p> | <p>October to February (Wet season)</p> <p>> Low levels of pathogens with 100CFU for 100ml recorded in Marina and other beaches</p> |
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***Mobile app**

> Will inform beach visitors on temperature, salinity, dissolved oxygen, nitrate, phosphate and coliform organisms

> Will first be initiated for 30km Chennai coast, Puducherry and Puri in Odisha and later will cover 7,517km Indian coastline

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Chennai: It is that time of the year when visitors flock to the Marina to beat the heat by taking a dip in the waves washing up on the shore. But a study by coastal monitoring experts suggests that even soaking your feet in the waters may do you more harm than good.

Scientists from the National Centre for Coastal Research (NCCR) have found extremely high levels of microbial load – mainly fecal coliforms like E. coli – in five crowded beaches in and around the city during summer with the Marina topping the list.

Continuous, uncontrolled and untreated sewage discharge into the Adyar and Cooum rivers which flow into the sea is the source for the increase in the bacterial load along the coast, with monitoring experts saying that the levels of pathogens are on the rise.

The centre, a project directorate under the ministry of earth sciences, collected 192 samples from five beaches – Marina, Elliot's, Thiruvanniyur, Ennore and Kovalam – during the wet and dry season of the year.

Scientist Pravakar Mishra said they recorded up to 4 lakh CFU (colony forming unit) of bacteria per millilitre against the permissible

limit of 100 CFU/ml at the Marina. "It is because the Marina is between the Adyar and Cooum which are connected to sewage inlets. Kovalam beach is relatively cleaner while Ennore has more industrial waste than domestic," he said. "Discharging treated water into the sea is the only way out. But right now, we have a capacity for treating only 40% of sewage in Chennai," said M V Ramana Murthy, head of NCCR.

To keep visitors informed on the water quality, NCCR is launching a mobile app to give daily updates on parameters like temperature, salinity, dissolved oxygen and coliform levels. Ramana Murthy said they will start with Chennai, Puducherry and Puri and subsequently cover at least 100 beaches across the 7500km Indian coastline.

Former director of the directorate of public health, Tamil Nadu, Dr S Elango said people vulnerable to such pathogens could end up with symptoms of diarrhea or dysentery.

"The presence of E. coli or coliform organisms in the water is an indicator that beaches are contaminated with faeces. It is a serious public health issue as people can get digestive problems, vomiting, loss of appetite, dehydration and abdominal pain, besides transmitting it to others," he said.

An accident bri