ALGAL TOXINS - BOON OR BANE TO MANKIND

RADHA PRASANNA AND PRANITA JAISWAL

Algal blooms have becomes a serious water-quality problem around the world, as their excessive proliferation leads to an undesirable disturbance to the balance of organisms growing in water bodies. From a human perspective, it is necessary to prevent or minimize such processes for both aesthetic and health reasons, as they produce odorous and toxic compounds; which cause health problems for wildlife, livestock, pets and humans in contact with contaminated water.

Such toxic water blooms (comprising genera such as Microsystis, Anabaena, Nostoc) produce a diverse array of bioactive compounds exhibiting antibiotic, algicidal, antifungal, cytotoxic, immunosuppressive and enzyme inhibiting activities. Therefore, there is a serious need for monitoring, evaluating and regulating these algal blooms not only as nuisance factors, but also as valuable bioresources for isolating novel bioactive compounds.