

عنوان مقاله:

Assessment of Pollution in Sidi M'Hamed Benali Lake (Algeria) Based on Bioindicators and Physicochemical Parameters

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خلاصه مقاله:

This study was carried out to investigate the degree, the nature and the origin of pollution in Sidi M'hamed Benali Lake using the physicochemical parameters, saprobic index and cladocerans. For this purpose, water and zooplankton sampling was collected from six sites in lake during five seasons. The average seasonal values of physicochemical parameters showed that the lake undergoes a slight anthropogenic and natural pollution in the dry and wet periods. Presence of certain toxic substances (CN-, Cr, Ni) require us to be more careful in irrigation, bathe and the consumption of fishes of that reservoir. Overall, oligo-mesosaprobic to beta-mesosaprobic rotifers have been prevailing in all five seasons indicating that the water was slightly or moderate polluted. The presence of *Bosmina longirostris*, *Daphnia longispina*, *Daphnia cuculata*, *Daphnia ambigua* and *Sididae diaphanosoma brachyrum* indicate bacterial contamination with the intense development of the phytoplankton in the lake, especially in springs and summer. Pearson correlation analysis revealed significant correlation between all of the physicochemical parameters. However, it revealed no significant correlation between zooplanktons occurrence and the majority environmental variables values. In present investigation, the Lake water is relatively little exposed to pollution and does not undergo strong organic pollution.

کلمات کلیدی:

Sidi M'hamed Benali Lake, Physicochemical parameters, Saprobic index, Cladocerans, Correlation analysis, Pollution

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