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LIMNOLOGICAL SIMILARITY BETWEEN TWO ISOLATED CONTINENTS PLACED AT DIFFERENT LATITUDES

Ashwani Wanganeo, Rajni Wanganeo

[1]Barkatullah University, Bhopal,M.P/Bhopal, India, [2]S.V.College, Bhopal,M.P/Bhopal, India

Present paper relates to the limnological status of water bodies placed at latitudes ranging from 32^{o} 17' – 37^{o} 51' N (Kashmir Himalayas) and 77^{o} 45' 51.5" – 70^{o} 43' – 70^{o} 48' S (Antarctica).

The drifting apart of the tectonic plates and the formation of Antarctic continent towards south wards and the continuous movement of the other plates towards north wards, led to the formation of Himalayas, which since then is still rising. This movement of the plates has been found to be responsible for creating certain land locked areas at an elevation of greater than 3000 m.a.s.l.

The biota inhabiting these regions (which once were under similar geo-climatic condition) is therefore the result of new re-colonization of relatively recent origin over the previous buried one. However, this recent re-colonized biota at different latitudes also shows near similarity in their adaptation.

The water bodies placed at both the latitudes i.e., in Kashmir Himalayas (> 3000 m.a.s.l) including Leh-Ladakh and Antarctica are accessible during summer months only and are both saline and freshwater types. Their thermal behavior also reveals near similarity being dimictic - cold monomictic to amictic types.

The source of water in all of these water bodies placed at two different latitudes is either glaciers or accumulated snow. The rock types are also almost similar, with moraine deposits by the side of glacial water bodies. Temperature and light intensity are the chief factors besides nutrients in governing the biological status of these water bodies. In order to adapt to the high intensity of light most of the zooplankton species develop pigmentation e.g., *Arctodiaptomous* sp. in Kashmir Himalayan water bodies and *Philidina grererina* in Antarctic waters. The fishes in Kashmir Himalayas (alt. > 3000m.a.sl) revealed low fecundity and bigger egg size a case similar to Antarctic fishes as reported by Liso-Venko (1979).

The rate of carbon fixation is very low at these latitudes. The nannoplankton has been found to be contributing maximum towards this fixation in water bodies at different latitudes under consideration.