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Biodiversity & Endangered species

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Recent vegetations biodiversity in Nile Delta wetlands in Egypt

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Abstract

Aquatic plants are an integral area of a lake and its aging process. Many of the warning to fresh waters such as, climate change and eutrophication will result in declined macrophyte diversity and will, in turn, warning the faunal diversity of aquatic ecosystems and favour the initiated of exotic species, at the cost of domestic species. Lake Maryout aquatic macrophytes observed in summer and autumn 2012, winter and spring 2013, were small diversity, indicating continuous pollution hazards. In spite of such situation, a new submerged macrophyte, P. pusillus, was observed for the first time in Lake Maryout along the project period (2009-2013), and probably not observed previously, according to the available literatures. Other submerged vegetations which withstand pollution such as; Cabomba caroliniana and N. flexilis, in addition to water cress Pistia stratiotes, all were recorded in different seasons but not often. Lake Burullus, known to be a protectorate in Ramsar sites list, is becoming seriously endangers more than the other north Nile Delta lakes. The outcome of summer-autumn seasons 2012, and winterspring 2013 at Lake Burullus, showed the disappearance of macrophytes diversity that is characterizing international Ramsar sites list. Thus, pollution indicators were observed in almost all stations under investigation such as, Potamogeton pectinatus. Eichhornia is known to resist increased pollution stress, recorded during the whole year round 2012-2013 investigation.

Close to the drains El-Serou and Faraskour, places known also, for the various submerged vegetations, Najas marina, Potamogeton (dominated) and Echinochloa stagnina emerged in summer, autumn 2012 and spring 2013. At Edku Lake, Stations located in front of fish aquaculture drainage water, Phragmites was observed.

The three formation of aquatic macrophytes were shown, along the period of investigation 2012-2013, such as free-floating (water hyacinths); submerged (Potamogeton and Ceratophyllum demersum and Cabomba caroliniana) and beginning (Scirpus maritimus), in inclusion to the emergent Polygonum amphibium, in autumn 2012. At Bardawil Lagoon (Ramsar Site), the green macroalga Caulerpa taxifolia was observed at El-Zaranik station, for the first time in Lake Bardawil history. Probably it was initiated from the Mediterranean through Boughaz opening. Generally plants biodiversity was very badly of in summer 2012 in all stations under investigations. Different aquatic plants such as the red macroalga Nemalion helminthoides and eelgrass Zostera marina and Cymodocea nodosa were shown in few regions; in some others the invasive species green macroalga Caulerpa prolifera was dominant.

The biodiversity hotspots are 35 biogeographical areas which have each exceptional endemism and intense caution to their plants integrity, and as such are worldwide conservation priorities. Nonetheless, previous estimates of herbal intact plants (NIV) withinside the hotspots are usually imprecise, indirect, coarse, and/or dated. Using moderate- and high-decision satellite tv for pc imagery in addition to maps of roads, settlements, and fires, we estimate the contemporary volume of NIV for the hotspots.Hotspots with the best preceding NIV estimates suffered the best obvious losses. The paucity of NIV is maximum mentioned in biomes ruled through dry forests, open woodlands, and grasslands, reflecting their anciental affinities with agriculture, such that NIV has a tendency to pay attention in pick biomes. Low and declining degrees of NIV withinside the hotspots underscore the want for an pressing recognition of restricted conservation sources on those biologically

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