

عنوان مقاله:

Relationships between environmental variables and free-living nematode communities in seasonally flooded wetlands

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خلاصه مقاله:

The Lo Go-Xa Mat is a national park in the southeastern region of Vietnam, which has a particularly high biodiversity and it includes different wetlands which are unique diverse in species composition. It can be categorized into two types: temporarily-seasonally and permanently flooded wetlands. Ta Not grassy marsh is representative of the seasonally flooded wetland. Whilst the diversity and ecology of plants and mammals are well documented, little or no information of the benthic ecology in the seasonally flooded wetland exist. This study aims to provide a new database of the nematode's structure in the seasonally flooded wetland and its relation with environmental variables as well as detection of the ecological quality, considering nematodes as bioindicators. This work is the first investigation on nematodes communities in associate with some environmental variables in the Ta Not grassy marsh. The results showed that free-living nematodes in the Ta Not seasonally flooded grassy marsh are characterized by the high density (ranged from 235.01 to 898.43 inds.10cm⁻²) but rather low diversity. More specifically, the genus richness (S) ranged from 8.20 to 8.60. The observed Margalef's species richness (d) was ranging from 1.07 to 1.53 and the Shannon-Wiener index (H) was measured from 2.36 to 2.52. In addition, the Pielou's evenness (J') ranged from 0.55 to 0.68 and the Hill indices indicated average values ranging between 5.46- 5.84 for N1, between 4.32-4.60 for N2, and between 2.64-2.86 for Ninf. Specifically, our results indicated that deep level, pH, and NH₄⁺ showed a significant correlation with the nematode density and bio-indices. The sediment of the Ta Not grassy marsh was assessed as in .good conditions in all stations based on the Maturity Index of nematodes

کلمات کلیدی:

Benthic fauna, Biodiversity, Bioindicators, Nematodes, Wetland ecosystems

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