

THE INFLUENCE OF HABITAT FEATURES ON AMPHIBIAN DISTRIBUTION IN NORTHEASTERN GREECE

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There is a global decline of amphibian populations and a growing urgency for the implementation of effective strategies based on detailed knowledge of amphibian habitat preferences. Environmental and isolation variables relating to abundance of breeding amphibians, species richness and patterns of community structure at different spatial scales were examined in the Dadia-Lefkimi-Soufli Forest National Park, Evros, Greece. The logistic regression and the generalized linear model were used to relate several habitat characteristics to species occurrence and species richness. The community structure responses to breeding-pond features were examined at four spatial scales using Canonical Correspondence Analysis (CCA). The richest communities live in low altitude ponds, with stony or clay bottoms, high solar exposure and abundant submerged and floating vegetation. The CCA models were significant ($p < 0.005$) and revealed the influence of environmental variables like altitude, percentage of field and broadleaves forest coverage, and isolation variables like number of wetlands, on amphibian species assemblages at all four spatial scales. At smaller spatial scales *Pelobates syriacus* was positively affected by homogenous oak and mixed forest, whereas at a larger scale the species was associated with cultivated landscape. The pattern of forest type selection also changed in the cases of *Salamandra salamandra* and *Bombina bombina* from mixed and broadleaves preference at small scale, to only broadleaves at larger scales. There is a specific need for a holistic management of amphibians that will consider habitat connectivity, particularly between aquatic and terrestrial habitats, at a larger, more interconnected scale.