RIVER ECOSYSTEM AND FLORISTIC COMPOSITION OF RIPARIAN ZONES AT THE UNAM RIVER, UIRYEONG-GUN, KOREA

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ABSTRACT

This study is examined river naturality and vegetative composition of river riparian zones to identify their most important sources of variation. Information on plant species and on physical characteristics that occur at the A region, B region, and C region was collected for 30 riparian plots located throughout the Unam River in Korea. According to the existing phytosociological data, 23 families, 57 genera, 66 species, 9 varieties have been identified. The vegetation of low water’s edge was natural weeds, shrubs, and mixed. The vegetation of flood way was various (both of natural vegetation and artificial vegetation at the A region, artificial vegetation with parks, lawns, and so on at the B region, and artificial vegetation at the C region). The value of cover-abundance at the A region was total 12.4 and cover-abundance values of grasses and forbs were 2.33 and 2.04, respectively. A Shannon-Weaver index (H’) of diversity at the A region was 3.48 across growth forms, varying from 0.59 to 3.01. The total richness index at the A region was 7.92. Although evenness indices were different from each other, there were not shown significant differences (p < 0.05). Recent, many riparian areas of this river have been lost or degraded for commercial and industrial developments. Thus, monitoring for biological diversity of plant species of this river is necessary for an adaptive management approach and the successful implementation of ecosystem management.

Keywords: Cover-abundance, riparian vegetation, river naturality, Unam River.