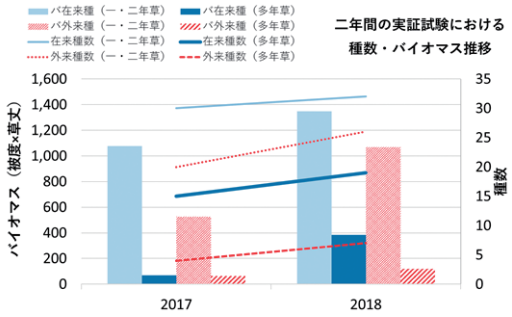
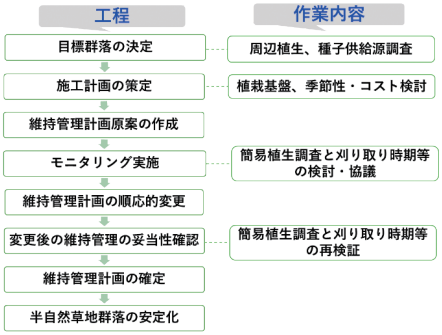
建築外構植栽における雑草共生型の半自然草地型緑化手法の開発

Development of weed-symbiotic semi-natural grassland-type greening method for exterior planting

菊地 のぞみ

Nozomi KIKUCHI





概 要

近年、建築外構植栽における生物多様性配慮のため、草地型の緑化技術が開発されつつあるが、いずれも初期植栽の維持を前提としており自然発生する雑草類については高コストな手取り除草であることから、生物多様性と低コストな省管理の両立が課題である。そこで、建築外構植栽において自然発生する雑草を可能な限り共生させ省管理で維持可能な半自然草地を創出・維持する手法の確立を目的とし、文献調査および半自然草地創出試験を行った。

その結果、文献調査から建築外構植栽において発生しうる雑草種群として300種弱が抽出され、その半数超は在来種であり、さらにその生態的特徴は、低茎で地中に生長点を持つ等、高い刈り取り耐性を備えていた。実証試験では、在来一年草による密な初期緑被、二年目以降の在来多年草の緑量の急増、および高茎外来種の初期の除草の重要性等が確認されたが、中長期的には建築外構植栽においても原則年数回の刈り取りのみという省管理で半自然草地が誘導可能であることが示された。

In recent years, grassland-type greening technology has been developed in consideration of biodiversity in building exterior planting, but it is premised on the maintenance of initial planting, and high-cost manual weeding is required for naturally occurring weeds, so the problem is to balance biodiversity and low-cost management. Therefore, a literature survey and a semi-natural grassland creation test were conducted with the aim of establishing a method for creating and maintaining semi-natural grassland requiring only labor-saving management by allowing coexistence of naturally occurring weeds as far as possible in exterior planting.

As a result, the literature survey extracted almost 300 weed species that could occur in building exteriors, more than half of which were native plants, and they were equipped with cutting resistance, such as low stems with growing points in the ground. In the verification test, we confirmed early and dense green cover by native annual plants and the rapid increase in the biomass of native perennial plants from the second year onward, and the importance of early weeding of high-stem alien plants. In the medium to long term, it was shown that semi-natural grassland can be guided by labor-saving maintenance, which is basically only mowing several times a year in the case of building exterior planting.