論文の内容の要旨

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論文題目　The effectiveness of urban wooded corridors: Can they increase bird species richness in urban patchy woodlots?
（都市の樹林性コリドーの有効性：コリドーはパッチ状樹林地における鳥類多様性を高めるか）

Remnants of woodlands in urban areas providing urban residents with recreational and aesthetic values can still function as refuges for some species and need appropriate managements for biodiversity conservation. Vegetation corridors, which connect patchy woodlands and mitigate habitat isolation, are expected to enhance the persistence of birds in urban landscapes.

However, the effectiveness of urban corridors on birds remains equivocal because vegetation corridor is often managed for human use with little consideration of wildlife. Here I investigated the availability of urban wooded corridors for bird species in connected or neighboring patches, focusing on their vegetation structures.

In Chapter 2, I showed the relationship between bird species and vegetation structures in wooded corridors. Avian species observed in eight lines of corridors located in and around Tokyo were explained by their vegetation structures and forest coverage and agricultural field coverage in the surrounding matrix.

In Chapter 3, I showed the effectiveness of corridors on bird species in connected or neighboring woodlots. I compared the effects of three major corridors of varying vegetation structures on the species richness and abundance of birds in wooded patches in Tokyo during wintering and breeding seasons. I found the effectiveness of corridors depended on the tolerance of birds to urbanization. Urban avoider species demonstrated lower species richness and abundance in patches close to the corridor with a sparsely vegetated understory as compared with patches close to the understory-richer corridors during winter.

From the view of management of greenspaces, the maintenance of shrub or understory vegetation is encouraged not only in patches but also in corridors. However, this may be in conflict with safety and aesthetic values of the environments for humans in urban landscapes. One possible strategic approach is to differentially select and manage corridors for forest-dwelling bird species, particularly for urban avoiders. I suggest that the

management practice of increasing vegetation in corridors will be better implemented in a landscape with numerous scattered greenspaces or that neighbor larger patches, whereas management for humans should be prioritized in a landscape with more artificial land use.