

CHAPTER 16

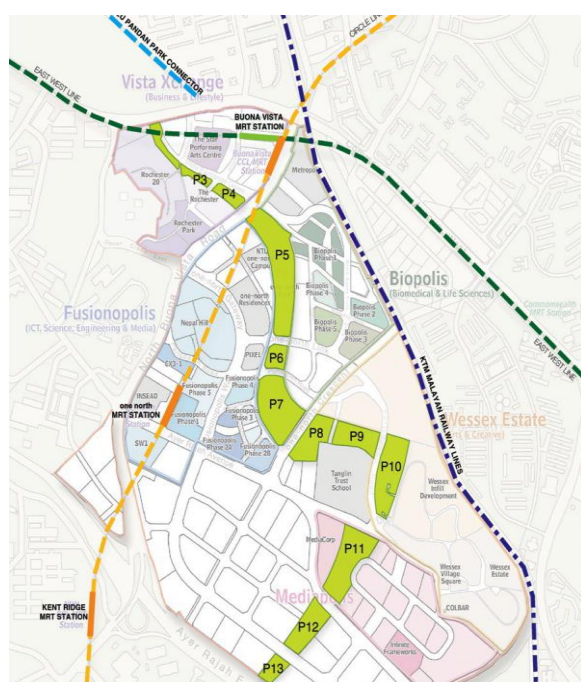
Habitat Enhancement in Small Parks in Highly Urbanised one-north

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Introduction

Many of the land parcels that have been re-zoned as park land are open, under-utilised, and unattractive sites. These sites could be remnant land that is located adjacent to commercial buildings, former construction sites or storage areas, or land with disturbed vegetation and forested area. One case study that the National Parks Board (NParks) had innovatively designed and transformed the sites into creating habitats for wildlife and park spaces was the one-north Park, Rochester West and East, and Fusionopolis North and South parcels.

These four land parcels formed part of the 16-hectare park that stretched across the entire length of one-north district in the heart of Singapore's up-and-coming research and business district (Fig. 1).



Land Parcel (P)	Name
P5 (Opened Oct 2005)	one-north Park: Biopolis
P11 (Opened Dec 2015)	one-north Park: Mediapolis
P3 (Opened June 2016)	one-north Park: Rochester West
P4 (Opened June 2016)	one-north Park: Rochester East
P6 (Opened June 2016)	one-north Park: Fusionopolis North
P7 (Opened June 2016)	one-north Park: Fusionopolis South

Fig. 1. A map showing the location of the parks and habitats for wildlife in one-north Park.

Besides developing green pockets for recreational outdoor activities in one-north, NParks had put in place the principles of environmental sustainability in habitat creation for fauna, particularly for birds and butterflies in Fusionopolis North and South.

Fusionopolis North and South

At Fusionopolis North, a butterfly garden was created by planting specially selected butterfly host plants that attracted and provided food for butterflies, caterpillars, and other insects. Brightly coloured flowering shrubs, grasses, and wildflowers such as the Peacock Flower (*Caesalpinia pulcherrima*), Golden Dewdrop (*Duranta erecta*), Common Lantana (*Lantana camara*), and Common Sendudok (*Melastoma malabathricum*) stood out as the main highlights of this garden (Fig. 2).



Fig. 2. A Tawny Coster (*Acraea terpsicore*) lands on the purple flowers of the Golden Dew Drop (*Duranta erecta*), a butterfly-attracting plant.

At least 10 species of butterflies including the Lime Butterfly (*Papilio demoleus malayanus*), Common Tiger (*Danaus genutia genutia*), and Blue Pansy (*Junonia orithya wallacei*) had been spotted gliding gracefully among flowering plants during clear and sunny mornings. Five species of bees such as the Asian Honeybee (*Apis cerana*) and Shiny Wing Carpenter Bee (*Xylocopa auripennis*) had also become residents here!

A rain garden was also created for this 0.58-hectare park, planted with specifically chosen wildflowers and grasses that aided natural filtration of stormwater runoff within the park (Fig. 3). This had evolved into a habitat for butterflies, dragonflies, bees, birds, and aquatic wildlife.



Fig. 3. The rain garden provides home to the fauna.

Retaining the existing vegetation, including the remnant secondary forests, Fusionopolis South was enhanced with multi-tiered and diverse vegetation, specifically biodiversity-attracting plants to create habitats for fauna (Fig. 4).



Fig. 4. A boardwalk cutting through the secondary forest has also been installed at Fusionopolis South to allow visitors to get closer to nature.

To attract birds to the park, NParks enhanced the plot with trees such as the Weeping Fig (*Ficus benjamina*), Malayan Wild Cherry (*Muntingia calabura*), Tembusu (*Cryptophyllum fragrans*), and Saga Tree (*Adenanthera pavonina* L.). Such trees are attractive to many bird species, serving as food sources. Bird lovers would be able to spot species such as the Common Flameback (*Dinopium*

javanese), Long-tailed Parakeet (*Psittacula longicauda*), and Pink-necked Green Pigeon (*Treron vernans*). Despite its small size of 2.43 hectares, more than 15 species of birds had been sighted in this park.

Conclusion

These parks in one-north may be small (i.e., less than 3 hectares), but with thoughtful and well-planned habitat enhancement designs, they provide biodiversity-rich areas for people to connect with nature. Strategically located in built-up areas, these green spaces contribute to meeting the target of 100% of Singapore's residents being within a 10-minute walk or 400 metres from a park or nature reserve by 2030. People can experience and connect with the urban biodiversity in the one-north community within a short distance from their work and home places!