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**Bachelor of Science (Forestry)
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As a kid, I always had a liking for the outdoors and adventure. I was fascinated with National Geographic stories of wildlife ecologists working in the deep forests of Amazonia, and would spend my free time nature rambling and birdwatching in various parts of Singapore. This was the beginning of a passion for nature. As with many families in the late 1980s, there was an expectation that one must be a doctor, lawyer, engineer, or accountant to be successful. My family was no different. But, I chose instead to pursue my passion and took up a PSC scholarship to study forestry at the Australian National University (ANU) in Canberra. This has turned out to be one of the best decisions I had ever made.

My time at ANU was an enriching one. This was an applied course, and encouraged students to undertake fieldwork. I was out in the field almost weekly and much time was spent in the forest. I still remember the times when we had to camp out in freezing cold temperatures to undertake wildlife survey, and the time when we had to climb up a 25 m tall pine tree as part of an exercise to measure tree heights. The skills learnt varied from dendrology, tree physiology, forest ecology and silviculture, to forest measurement, forest engineering and economics. I also specialised in the field of conservation biology, and researched nature conservation in urban landscapes. This diversity of skills, coupled with the creative learning environment, has served me well in the time that I have been with NParks.

Our Garden City comprises gardens, parks, streetscapes and natural habitats within an urbanized landscape matrix. Unlike trees in a forest, the growing conditions in an urban setting are harsher and more challenging. I learnt this very quickly in my first assignment in NParks, which was to manage parks and streetscapes in the city area. The understanding of a tree's growth habit and physiology in nature is key, but must be quickly adapted and translated into a maintenance regime that is suited to the urban conditions. The search for new tree species in order to increase the diversity of our plantings and hence insure our Garden City against epidemic disease outbreaks to the few dominant tree species is a constant challenge. The responsibility of the task is immense. A wrong decision, say in pruning a tree, can damage 30 years of spectacular growth and pose a risk to public safety. The greater challenge is in educating and inculcating a greater appreciation of the Garden City amongst Singaporeans. This involves having to help organize various programmes in parks, such as the Adopt-A-Park scheme.

In the time that I have been with NParks, I have had the opportunity to be exposed to various areas of work within the organization. This included a period of secondment to the Ministry of National Development to gain a better understanding of the key imperatives behind policy formulation pertaining to our Garden City. As a learning organization committed to staff development, NParks supported me on a partial scholarship which also included paid leave for my postgraduate degree at the University of British Columbia, Vancouver, even though I had already received a Canadian Commonwealth scholarship for these studies.

My current assignment is an equally challenging one. I am involved in the development of the new Gardens by the Bay. The Gardens will set forth a distinctive quality living environment in the heart of Singapore's Downtown, and help to create our vision of a "City in A Garden". Together with other colleagues, my work involves managing and facilitating the project. The challenges are multi-faceted, but the work is exhilarating. We are constantly seeking out innovative and creative building and landscaping solutions that will not only enhance the Gardens aesthetics and ambience, but emphasize optimum visitor comfort and new standards of energy and water efficiency. Every day on this project is a learning experience.

To see a landscape grow and evolve gives much satisfaction. However, the excitement is in making this happen. From the day I took up this scholarship, I have been constantly challenged and have enjoyed every bit of it.

Kenneth's thoughts on Conservation Biology



How do we ensure that the small forest remnants within our Nature Reserves will persist through time? How do we enhance wildlife diversity, such as birds and butterflies, in our urban environment? These are some of the questions we ask all the time in the course of our work in NParks, and seek to address through an understanding of conservation biology or the science behind nature conservation. The management of our small forest remnants requires a good understanding of forest ecology – how a forest goes through various successional stages over time with different tree species dominating at each stage, how natural forces of wind and lightning bring about regeneration, how seed dispersal as a primer of regeneration is brought about. An understanding of these concepts will enable us to plan and implement effective management strategies that will ensure that these forests continue to regenerate and develop through time. It is akin to nurturing a child by giving the best nutrition and care during the formative years, except that the time taken will be much longer.

Forest ecology also encompasses the study of plant and animal interactions. Our streetscape plantings have been manipulated structurally and floristically based on our understanding of what birds feed on, and what plants are host to butterflies. This knowledge has been applied to great effect in sustaining a rich diversity of wildlife, especially birds and butterflies, in our Garden City.

Conservation biology is often offered as part of an environmental science degree course work. Universities that offer this include the Australian National University, University of Queensland, University of California (UCLA), University of British Columbia, Yale University, Harvard University, University of Reading, University of Edinburgh, to name a few.