

SECTION E1

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Development of a database for invasive alien plants of Sri Lanka

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Plants that spread in natural or semi natural habitats producing significant changes in terms of community composition and ecosystem processes are categorized as invasive plants. Majority of plant invaders are aliens that have been introduced from one country to another. Thus, Invasive Alien Plants (IAP) can be found in all countries of the world. Biodiversity of Sri Lanka has also been threatened by IAP. At present information on these plants can be found in literature and other storage devices which are scattered in different institutions through out the country.

With the advancement of global information technology and fast information retrieval systems, advance computer technologies are increasingly applied to handle biological, ecological and environmental information. Today, many countries maintain their own information management systems as a part of their strategies in biodiversity conservation. The present study aims to fulfill the urgent need of an easily accessible integrated computerized information retrieval system for Invasive Plants of Sri Lanka in order to strengthen our National Action Plan on IAP Management. The objectives were to make the system available as an automated checklist of IAP and geo-referenced inventory or tracking tool to identify their distribution.

The methodology included designing of the software according to the identified requirements, coding and testing. The software design was based on the client server / two-tier architecture using SQL 2000 and Interfaces were designed using Microsoft Visual Basic.NET 2005. Coding of the software program was done using Visual Basic.NET programming language and SQL query language in order to integrate information and make the system functional. Testing was conducted to certify the proper functionality of the system. Finally, information on IAP was fed to the system. This information management system on IAP allows access for data entry and search facilities depending on the user's requirements. It also allows the administrator and registered user to update information in order to assist monitoring and successful management of IAP of Sri Lanka.

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