A DATA SYSTEM FOR TAIWANESE GRASS SPECIES (PART I): SPECIMEN LABEL DATA STORAGE AND RETRIEVAL[1]

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ABSTRACT

A data storage and retrieval system has been developed for assembling and manipulating specimen information concerning Taiwanese grass species. It was designed for use on an affordable and widespread microcomputer, and is most suitable for small colleges and universities with small herbaria or for personal collections. Steps involved in the creation of item fields, character sets, file structure, and their updating are briefly described. The query system was so designed that it can be used to retrieve records with desired attributes and from them to give results in a variety of forms, including specimen labels, distribution map, and other relevant information.

INTRODUCTION

The continuous botanical surveys since the establishment of the Taihoku Imperial University (the Predecessor of the present National Taiwan University) in 1928, have resulted in the housing of about 15,000 specimens of Gramineae in the Herbarium of the Botany Department (TAI). While TAI's special emphasis is on the Taiwan Flora, it also contains plenty of specimens from South Mainland China, Pacific islands, Japan, and many other countries.

For a maximal utilization of the label information, a computerized data storage and retrieval system has been developed, which will incorporate the Gramineae collections of the TAI into a complex data base.

The principal aim of this system is to cater for a variey of needs, such as printing of labels, generating distribution maps or extracting the relevant data according to various kinds of queries.

The importance of electronic data processing in herbaria has been discussed by several authors (Crovello, 1967; Crovello & MacDonald, 1970; Rensberger & Berry, 1967; Soper & Perring, 1967; Hall, 1972, 1974; Morse, 1974) and many systems have been sucessfully used. The EDP-IR in the Columbian National Herbarium (Forero & Pereira, 1976), the EDP technique designed for Florida's Central-East coast vegetation (Sweet & Poppleton, 1977), the Precis of the National Herbarium of South Africa (Morris & Glen, 1978), the optical-scan data encoding system at the University of Georgia Herbarium (Jones et al., 1983) are examples among them.

The present system is designed primarily for handling a small set of label data. It takes the advantage of the affordable and widespread microcomputer (Apple II),

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