

ABSTRACT

Community Status of Ferns and Fern Allies in Trinidad and Tobago

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A survey of approximately 3,000 fern specimens, dating from 1842 - 1993, was conducted at the National Herbarium of Trinidad and Tobago (TRIN) and analysed. Eighty one species, represented by five or fewer specimens in the collection, were selected as rare. A Risk Index value was developed to objectively evaluate the degree of rarity of these species. The values ranged from 3 to 24 for these rare ferns and fern allies. The higher the Risk Index value the rarer was the species.

A field survey was conducted in natural forest throughout Trinidad and Tobago to test the Risk Index. Plot samples (100m x 2m) from 45 sites were surveyed for ferns. Altogether, 107 fern species were identified in the field, of which 15 species were common to both the herbarium and field surveys. The possibility that these 15 species might fall into an intermediate category between rare and common needs further investigation.

Combining the herbarium, field and literature surveys, 94 species of ferns (31%) are now regarded as rare, threatened or endangered, with the largest number occurring in the Northern Range.

The total number of Pteridophyta recorded for Trinidad and Tobago is 302 species. These findings are incorporated into this study as a complete

checklist and include reports of other species not represented in (TRIN) or found in the field survey.

Life form and habitat data on the rarer taxa have been documented to enable suitable communities to be identified so that further field studies can be made. This should improve awareness of the role of ferns in the flora and support more effective conservation measures.

The native flora of Trinidad and Tobago is under threat from urban development, slash and burn agriculture, illegal logging, and increasing road access to remote areas. The methods used in this study can be modified to evaluate other taxa.

Keywords : Pteridophyta, ferns and fern allies, community status, Risk Index rating, rare, threatened and endangered ferns, Trinidad & Tobago.