

## PROJECT SUMMARY

**TITLE OF PROJECT:** The taxonomy and ecology of Latin American pines and the production of a taxonomic/floristic monograph of all taxa in the region.

**R NUMBER:** R5465

**RNRRS PROGRAMME:** Forestry

**PROGRAMME MANAGER:** OFI

**SUB-CONTRACTOR:** OFI

**RNRRS PROGRAMME PURPOSE:** Productivity of plantation forestry on hillsides increased

**RNRRS PRODUCTION SYSTEM:** Hillside

**COMMODITY BASE:** Timber, fuelwood

**BENEFICIARIES:** Plantation managers

**TARGET INSTITUTIONS:** Forestry research institutes and policy departments

**GEOGRAPHIC FOCUS:** Belize, El Salvador, Guatemala, Honduras, Mexico, Nicaragua

**START DATE:** 01/10/92 **FINISH DATE:** 31/01/1996

**TOTAL COST:** £169,249

### 1. Project purpose:

The pines of Latin America and the Caribbean are an important economic and environmental resource, both within their natural distributions and where they are widely planted as exotics. The taxonomy of the group is complex and, while there is an extensive literature, a comprehensive taxonomic treatment has not been available. This imposes a constraint on the contribution that many of the taxa can potentially make to socio-economic development, and a full monographic treatment of their taxonomy and ecology is needed to assist **improvement of the genetic resource base of plantation trees and promotion of new varieties.**

### 2. Outputs:

The project's objectives were:

- 1) to produce technical botanic descriptions of all species and named varieties of *Pinus* occurring naturally in Latin America and the Caribbean;
- 2) to illustrate all species, both in line drawings and photographs;
- 3) to produce a full synonymy of accepted names, with references and, where possible, types;
- 4) to create keys for the identification of all accepted taxa;
- 5) to assess species relationships and give a classification in accordance with phylogenetic theory;
- 6) to produce a concise description of the distribution and ecology of each species;
- 7) to discuss the properties and relationships within the genus of other features, e.g. wood anatomy and terpene chemistry;
- 8) to prepare a monograph for publication in *Flora Neotropica*;
- 9) to produce a field guide to the pines of Mexico and Central America.

### 3. Contribution of outputs to project goal:

Objectives 1 to 7 were achieved in full and the outputs incorporated in the monograph (objective 8), which includes introductory chapters on the historical aspects of the taxonomy of Latin American pines, morphology, reproductive biology, distribution and ecology. Accounts are given of 47 species and 20 varieties/subspecies. Based on the information in the monograph, a field guide was produced for foresters, ecologists, conservationists and field botanists who need to identify pine trees. The information in these publications will facilitate a better understanding of the Latin American pine resource, thus contributing to **increased productivity of plantation forestry on hillsides.**

### 4. Dissemination products:

See PROREC output.

### 5. Follow-up:

The field guide will be published in English and Spanish versions.