Richard Condit

Tropical Forest Census Plots:

Methods and Results from Barro Colorado Island, Panama and a Comparison with Other Plots



CONTENTS =

Part 1: A Network of Large Forest Plots in the	Tropics 1
1.1. The CTFS and the Standardization of Me	thodology3
Purpose of this Book	4
Layout of the Book	5
1.2. Design and Purpose of the Large Plot Ne	
The Purpose of a Large Forest Plot	9
The CTFS Network of Plots	10
Selecting a Site	
Personnel	
Part 2: Field Methods for a Large Forest Plot	
Introduction and Overview	
2.1. Topography and the Mapping Grid	
Equipment and Supplies	19
Phase I—The Survey	20
Phase 2—Placing the 5-m Grid	24
Phase 3—Calculating the Topography as	
Rationale for the Methods and Alternati	
Time and Labor for Placing the Grid	
2.2. Censusing Trees	37
Personnel	
Equipment and Supplies	38
Plants to Include	
Work Sequence	
Phase I—Demarcating Subquadrats	
Phase 2—Data Collection	
Phase 3—Checking the Work	
Rationale for the Methods and Alternati	
Time, Labor, and Costs	
2.3. Taxonomy	65
Personnel	
Phase 1—Review What Is Known	
Phase 2—The First Two Hectares	
Phase 3—Completing 50 Ha	
Phase 5—Completing 50 Ha	08
Well-Known Flora	70
Rationale for the Methods and Alternati Time and Labor	
2.4. Checking the Field Work	73
Phase I—Dbh Checks	73
Phase 2—Taxonomy Checks	75
Alternative Approaches to Checking	75
Time and Labor	
THIC AND LAUUL	70

2.5.	Recensus77
,.	Census Interval
	Before the Recensus
	Personnel and Work Teams
	Equipment 78
	Plants to Include
	Data Collection
	Taxonomy and Checking85
	A Third Census and Beyond86
	Rationale for the Methods and Alternative Approaches 87
	Time and Labor89
2.6.	Affiliated Censuses at BCI91
	Seeds and Fruits
	Canopy Height92
	Lianas
	6
2.7.	Summary and Overview
	Labor Needs 97
	Equipment Needs
	Time 97
	Total Cost for a Large Plot 97
	Total Cost for a Large Flot97
Part	3: Database Methods for a Large Forest Plot 101
	Introduction and Overview 103
3.1.	
	Initial Data Entry
	Checking the Data
	Merging the Databases
	Equipment, Time, and Labor
	Programs and Boxes117
3.2.	Constructing a Database for the First Census
J.~.	Data Fields in the Final Database
	Data Fields Removed from the Final Database
	Splitting the Database in Two
	Database Correction
	Backing Up!
	Field Sheets for the Next Census
	Equipment, Time, and Labor
	Programs and Boxes

,

3.3. Constructing a Database After the Second Census 16	
Recruits	
Original Trees	
The Final Database 164	
Third and Later Censuses	
Final Database Structure	
Database Correction	
Field Sheets for the Next Census	
Appendix 3.3. POM Problems at BCI	l
3.4. Data Availability173	j
BCI Data173	3
The Other Large Plots174	ŀ
Part 4: Species Distribution Maps from the 50 ha Plot	
at Barro Colorado Island177	,
Introduction	
Habitat Map179)
Species Maps	
• •	
References203	3
Index 20	7