

THE VASCULAR FLORA OF LA SELVA BIOLOGICAL STATION,  
COSTA RICA  
INTRODUCTION

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The publication of a manual of the vascular plants of La Selva Biological Station, Costa Rica, begins with the treatments of the six families that appear in this issue of *Selbyana*. It is planned that the remaining families will appear in subsequent issues as soon as their treatments are ready and the necessary finances secured. The families will thus be published in no phylogenetic order and will be bound together in *Selbyana* with other articles. It is intended that eventually a complete manual will be republished as a single volume.

The La Selva Biological Station is located 10°26'N and 84°00'W in the Caribbean lowlands of northeastern Costa Rica. It is approximately 4 km from Puerto Viejo de Sarapiquí, about 100 km north of the capital city of San José, and about 36 km south of the Nicaraguan border.

La Selva comprises an area of 1,533 hectares (approximately 3,800 acres) with nearly two-thirds of the area classified as virgin primary rainforest. Other vegetational types are swamp and riparian forests, secondary forests, abandoned plantations and pastures. Although it is difficult to believe after scrambling up and down muddy trails all day in the tropical humidity, less than 100 m of topographic relief occur at La Selva, ranging from 37 m at the junction of the

Puerto Viejo and Sarapiquí Rivers, to 130 m at the South Boundary. The area is located at the transition between the foothills of the Cordillera Central and the extensive Caribbean coastal plain. The mean annual temperature is 24°C and the average daily range of temperature greatly exceeds the difference between the warmest and coldest months. The average annual rainfall is approximately 4,000 mm which is rather well dispersed throughout the year. The period from February to April constitutes the dry season while July and December are the wettest months.

The total vascular flora is now estimated to contain approximately 1,900 species. More than 50 new species have been described from collections made at La Selva and our studies of certain families are still incomplete. Because La Selva is the leading center for the training of American tropical biologists and a most important site for moist tropical lowland research, the need for a flora is obvious. This long felt need for a usable flora is the primary reason for publishing treatments as they are individually completed rather than waiting until the accounts of all families are finished.

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