A Strand Palm of Southeastern Brazil

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The sandy strands of southeastern Brazil, exemplified by world renowned Copacabana Beach at Rio de Janeiro, are famed for their innate beauty and striking setting on a coast that is full of spectacular natural scenery. Most visitors to these strands enjoy them more for their natatory offerings rather than for their vegetation or flora. The fun beaches of metropolitan Rio are now barren affairs, botanically speaking, having been cleared long since of the native beach plants that one time undoubtedly made verdant those stabilized stretches of sand lving above the line of wave action. However, one need drive only some ten miles or so southwards from Rio along the coast to find stretches of strand which still have their vegetation relatively undisturbed by man. These beaches form the so-called restingas of the Brazilians - narrow bands of sand probably built up by wave and current activity and associated often with lagoons, which lie behind the dunes separating them from the mountains in the background.

Such sandy restingas are the native haunts of one of Brazil's most unusual palms, Allagoptera arenaria, locally called "guriri" but which might better be called beach or resting a palm. This palm is unusual in the habitat niche that it occupies. Most palms are at home away from the seaside where siliceous sands, constant wind action, and noxious salt water or salt spray make conditions unbearable for all but the hardiest of plants. and these are seldom members of the palm family. But to Allagoptera arenaria salt spray and sand dunes at the seaside constitute this palm's own special heaven in which it seems to delight. Under such conditions it becomes the dominant plant forming practically pure stands, its subterranean stems and roots anchoring and stabilizing the upper sands of beach dunes over many acres.

The rapidly expanding southern suburbs of Rio might eventually destroy these nearby stands of beach palms, but fortunately and with considerable foresight the state of Guanabara, through its Forest Services, established in 1951 a Forest Research Nature Conservation Center along with several extensive biological reserves on the coast just to the south of the city. One of these, the Jacarepaguá Biological Reserve, includes the Restinga Jacarepaguá, within whose boundaries the accompanying photographs were taken.

Allagoptera arenaria is a low trunkless palm with arching foliage standing on an average about a meter tall. The attractive pinnately-compound leaves radiate in all directions from the crown of the plant. The inflorescences, because of their stiffly erect nature, stand above the arching leaves. The spicate flower clusters are yellow and are associated with woody green spathes which sport colorful yellow inner surfaces. Flowering and fruiting are said to occur all year.

This species has been more generally known by the scientific name of *Diplothemium maritimum*, a binomial first applied by Martius, the great student of Brazilian palms, nearly a century and a half ago. As has been shown by Moore (in PRINCIPES 6:37-39, 1962), an earlier name had been published which, under our international rules of nomenclature, gives priority to the generic name *Allagoptera*, which must now be used.

As an attractive stemless feather palm, *Allagoptera arenaria* has much to offer as a horticultural subject. It seems suited



28. Allagoptera arenaria dominating the sand dunes, Restinga of Jacarepaguá, near Rio de Janeiro, Brazil. Photograph by W. H. Hodge, April, 1962.

particularly for those special problem areas which involve gardens or plantings at sea beach margins where most plants find it difficult to become established because of predominance of pure sand, to say nothing of thriving under constant exposure to sea breezes and the deleterious action of salt spray borne by them. The natural range of this palm in Brazil straddles the Tropic of Capricorn (23.5° south latitude). Its hardiness is probably similar to that of *Arecastrum Ro*-



29. Allagoptera arenaria, single plant on dune, Restinga of Jacarepaguá, near Rio de Janeiro, Brazil. Photograph by W. H. Hodge.

manzoffianum which occurs as a native palm, in different habitats, along the same coast. Since the corresponding Tropic of Cancer lies close to the southernmost tip of Florida, it is reasonable to expect that Allagoptera arenaria could

well be considered as an especially interesting garden subject for the grounds of beach homes in the southern part of the Peninsula State or for areas anywhere else where climatic and edaphic conditions are similar.