

R. GRACILIS var. TENUISSIMA (figs. 2D, 3B, 7).

Variety *tenuissima* differs from var. *gracilis* in its slender stems to about 3 ft. high, 3/16 in. in diameter and in its small leaves with only 8-9 nerves on each side of a rachis 1 3/8 - 2 3/16 in. long. Lower pinnae are 3-nerved, nearly 5 in. long, 11/16 in. wide. Upper pinnae are 5-6-nerved, to 4 1/2 in. long on the lower margin, 1 5/8 in. wide. The petiole measures 4 1/4 - 7 1/2 in. and has a short, loosely woven ligular structure at its base. Two to three slender simple rachillae 2 in. long with 8-17 spiralled flowering nodes make up the panicle. Staminate flowers are like those of var. *gracilis*, and fruit apparently resembles that of the var. *gracilior*.

Until flowers were studied, the specimens of var. *tenuissima* had been referred to var. *gracilior* which they resemble in size and leaf. The variety is known only from the wild state in the mountains of Oaxaca, Mexico, where it occurs north of Niltepec and near Tepinapa at altitudes of 3,000 feet or more.

R. GRACILIS var. GRACILIOR (figs. 2 E, 8).

Variety *gracilior* has a habit resembling that of var. *tenuissima* with stems to about 3 ft. high, 9/32 in. in diameter. Leaves have petioles to 9 7/8 in. long and are 8-11-nerved on each side of a rachis to 2 3/8 in. long. The lower pinnae are 3-4-nerved, to 4 3/4 in. long, 1 1/4 in. wide. Upper pinnae are 5-8-nerved, to 5 3/4 in. long on the lower margin, to 2 1/8 in. wide. The panicle has 3-8 slender rachillae to 3 5/16 in. long, the lower of which are sometimes forked, bearing 6-17 flowering nodes in a loose spiral. Staminate flowers to 5/32 in. long have 8-10 stamens. The fruit is 1/2 - 9/16 in. long, about 5/16 in. in diameter with a low apiculate crown.

Although variety *gracilior* resembles var. *tenuissima* in habit it differs in its staminate flowers and is found at low elevations from Veracruz and Oaxaca in Mexico, south to British Honduras at

Stann Creek and Atlántida Department of Honduras.

I have seen it growing on the forested slopes above Zontecomapan between San Andres Tuxtla and the Atlantic Coast in Veracruz, Mexico, where it is associated with *Astrocaryum mexicanum*. The slender canes are inconspicuous in the tangled undergrowth but the bright fruiting inflorescences stand out against the green background. It is presumably this variety that is now grown in Florida and California.

R. GRACILIS var. ROSTRATA (figs. 1C, 2F).

Variety *rostrata* is variable. Stems are usually rather densely clustered, reaching a height of nearly 5 ft., a diameter of 9/16 in. Leaves have petioles 5 1/2 - 13 1/2 in. long, a rachis 1 1/2 - 4 1/2 in. long and generally 2 but rarely 3-4 pinnae. Lower pinnae are 3-5-nerved, 7 1/8 in. long, 1 3/4 in. wide. Upper pinnae are 8-10-nerved, to 7 1/8 in. long on the lower margin, to 3 3/4 in. wide. Rarely the upper pinnae are again partially or completely divided into several-nerved narrower segments of about the same length. The panicle has 2-6 simple rachillae to 5 3/4 in. long on which the 16-37 flowering nodes are borne in 2 nearly opposite ranks, at least above the base. Staminate flowers are about 1/8 in. long with 8-10 stamens. The mature fruit is about 1/2 in. long, 1/4 in. in diameter, and is tipped with a prominent truncate crown about 3/32 in. high.

Plants assigned to var. *rostrata* differ almost as much amongst themselves in regard to the leaf as do the various varieties of *R. gracilis*, though the inflorescence and fruit are relatively constant. Four forms are found near the coast and on higher ground inland from eastern Nicaragua south into eastern Costa Rica. These are not designated formally in a botanical sense for they cannot be distinguished by exact means. The typical form, that which was first described as *R. rostrata*, occurs in the lower reaches of the Reventazon River in Costa Rica and near the Ocong-



Fig. 8.

REINHARDTIA GRACILIS var. GRACILIOR. A plant growing along banks of the Coatzacoalcos River at Buenaventura, Veracruz, Mexico. Photograph courtesy Plant Introduction Section, U.S. Department of Agriculture.

was River in Nicaragua. It has large leaves with 2-3 pinnae and 11- mostly 13-15 nerves. Without the inflorescence, leaves would be easily confused with those of *R. gracilis* var. *gracilis*.

A second form from the San Carlos plains of Costa Rica has smaller leaves with 3-4 pinnae and 13-15 nerves on each side of the rachis. A third from the vicinity of Turrialba, Costa Rica, and Libertad, Nicaragua, at elevations of 1,500 feet or more has leaves much resembling those of var. *gracilior*, with

2 pinnae and 12-13 nerves. Finally, a fourth form from Río Luís and Pejivalle, Costa Rica, at altitudes of 2,300 to 3,000 feet has leaves scarcely separable from those of var. *tenuissima*.

The third form from the region of Turrialba (and often collected by botanists near the Inter-American Institute of Agricultural Sciences) has been introduced into cultivation recently. It may be the same as the one grown in Europe nearly a century ago.