

numbers. Indeed, several palms not included in our enumeration are mentioned in the sketches of the vegetation of Honduras, Guatemala, and other countries, which we have compiled from various sources.

Six of the genera are endemic, and seventeen of the remaining eighteen are restricted to America. The distribution of the only one extending beyond America has already been discussed. Of the species upwards of 95 per cent. are endemic, and the others do not extend beyond America. Nearly two thirds of them belong to the genera *Chamædorea*, *Geonoma*, and *Bactris*. The first of these three genera is specially characteristic of the Mexican and Central-American highlands, extending southward in the Andes to Peru, but not reaching the West Indies; and upwards of forty species have been described from within our limits. They are mostly small, slender, elegant palms with reed-like flexible stems and small leaves; and some of them are perfect miniature members of their order, not exceeding a foot in height. Perhaps the most diminutive of all is *Chamædorea tenella*, figured in the 'Botanical Magazine' (t. 6584), concerning which Sir Joseph Hooker wrote, "Our male specimen is nine inches high, and the female seven, yet it ripened fruit well." A mean temperature of about 62°·5 F., abundance of moisture, and shady situations are the conditions under which they flourish best; and they chiefly inhabit the oak-forests at elevations of 2000 to 4500 feet, varying of course according to latitude and aspect. Thus, on the authority of Liebmann's labels, *Chamædorea cataractarum* grows near the cataracts of Chinantla at 1200 to 1500 feet; *C. humilis* in various localities at 1500 to 3000 feet; and *C. pacaya*, in the barrancas of the Volcan de Chiriqui up to 7000 feet*. It is not certain what the palms are that Liebmann had in view in the statement that species of *Corypha* and *Chamærops* reach an altitude of 8000 feet in the interior (see p. 147). But this is not an improbable height, inasmuch as *Oreodoxa frigida* inhabits the Andes at 2000 to 2800 metres, while *Euterpe andicola*, the most alpine of all palms, reaches nearly 3000 metres. *Geonoma* and *Bactris* are genera of about 100 species each, chiefly inhabiting the tropical regions; thirty-seven of the former and fifty-four of the latter are Brazilian. Only a few species reach Mexico, the bulk being from Costa Rica. Conspicuous among the palms of the sea-shore and tropical zone of Central America and Mexico are species of *Oreodoxa*, *Socratea*, *Thrinax*, *Acrocomia*, *Elæis*, *Cocos*, and *Attalea*. Heller† mentions that he saw trees of *Oreodoxa regia* at Cordova, which were 150 feet high; but these were probably planted, as they are in many other places. Morris‡ regards it as an introduced palm in British Honduras, where, on the same authority, *O. oleracea* is abundant in the lowlands and on the banks of rivers.

The endemic genera *Malortiea*, *Reinhardtia*, *Asterogyne*, *Calypterogyne*, *Pholidostachys*, and *Welfia* are all elegant palms, mostly of the slender habit and small size of *Chamædorea*.

* Wagner in Petermann's Mittheilungen, 1863, p. 294.

† Reisen in Mexico, p. 109.

‡ The Colony of British Honduras, p. 68.