

var. *hiabundus*), and *Glandina sowerbyana* *. *Eucalodium*, on the contrary, is wanting on the Pacific slope of Guatemala."

It must be borne in mind, however, that in Costa Rica the environs of San José have been more thoroughly explored by various collectors than the more remote lower districts; this will account for the comparatively large number of species of *Streptostyla*, *Hyalinia*, *Guppya*, and *Leptinaria* on the central tableland. But it is the more remarkable that none of the large-sized freshwater shells, which cannot be easily overlooked, as *Ampullaria*, *Pachychilus*, *Unio*, and *Anodonta*, have hitherto been found there.

The differences between the fauna of the Pacific and Atlantic slopes, in both Mexico and Central America, are noticed in the Tables: they seem to be not very important as regards the land-shells. We find in many instances a very unequal number of species, but it must be remembered that in Mexico, Guatemala, Honduras †, and Nicaragua the Eastern slope is not only broader and provided with larger rivers, but has also, at least in Mexico, been more carefully explored by a greater number of scientific travellers and residents; it is therefore not a matter of surprise that the Eastern slope of these countries has offered, so far, more distinct forms and more species to science than the Western, especially among the freshwater shells ‡. In

* Dr. Stoll possesses a specimen of this species from the Hacienda Buenavista, in the upper part of the Cholhuitz district, which has an elevation of 3500 feet (about 1137 m.); this locality was not previously mentioned (*infra*, p. 55), because I had not seen the example.

† Fischer and Crosse (Miss. Sci. Mex., Moll. ii. p. 678), speaking of the subregion of the Pacific slope, correctly insist on the peculiar geographical range of *Holospira*—the inland portion of Texas, and from Arizona through Coahuila and Chihuahua to the western provinces of Mexico,—corresponding to the range of the Cactacean genera *Cereus* and *Echinocereus* (also *Mammillaria*, see K. Schumann, "Verbreitung der Cactaceæ," Abhandl. Akad. Berlin, 1899). But they go too far in saying that *Holospira* is completely absent from the Atlantic slope of Mexico: San Carlos, the recorded locality in Chihuahua for *H. coahuilensis*, var. *semisculpta*, lies very near to the Rio del Norte, and by far the greater part of Chihuahua and of the adjacent State of Coahuila are drained by the same river to the Atlantic; moreover, *H. teres*, var. *hoegeana*, is found exclusively on the eastern slope of the Mexican tableland (see *infra*, p. 280), *H. berendti* in the States of Vera Cruz and Chiapas (see *infra*, p. 281), and *H. veracruziana* near Misantla, also in Vera Cruz (see *infra*, p. 635).

‡ Fischer and Crosse, in their review of the geographical distribution (Miss. Sci. Mex., Moll. ii. pp. 672, 678), state that the genus *Unio* is wanting ("fait défaut") within Mexico in the streams running to the Pacific; but they mention themselves, in the descriptive part (p. 606), that *Unio poeyanus*, Lea, is found in the Rio Balsas, State of Guerrero, which empties into the Pacific.