

Castellanos (1927) listed two major morphological differences between *Vassallia* and *Kraglievichia*. In *Vassallia* the first five teeth tend to be peg-like and rotated lingually, whereas in *Kraglievichia* only the first four teeth show this condition. *Vassallia* is also significantly smaller than *Kraglievichia*. I suspect here, as did Castellanos, that *Vassallia* is the ancestor of *Kraglievichia*.

So far as the status of *Plaina* is concerned, Castellanos (1927) was probably correct in his initial judgment when he assigned the material on which this genus was based (three isolated dermal plates) to the genus *Kraglievichia*. He considered these plates to be intermediate in size and sculpturing between *Kraglievichia* and *Pampatherium*, although they actually fall within the smaller size range of *Kraglievichia*. Furthermore, it seems illogical to interpret slight variations in plate rugosity as generically significant. I therefore propose that *Plaina* be regarded as a synonym of *Kraglievichia*.

The genus *Hoffstetteria* Castellanos (1957) is based upon supposed differences in shape and measurements of the teeth. These differences are minor, however, and may be attributed to specific variation. *Hoffstetteria* is thus considered to be a synonym of *Pampatherium*.

In Simpson's (1930) description of *Holmesina*, he listed a number of characters by which this new genus differed from *Pampatherium*. James (1957) subsequently showed that the characters given by Simpson are not sufficient to separate the North and South American forms generically, and that *Holmesina* is a synonym of *Pampatherium*. I support James' conclusion. Simpson (1930) argued also that if *Holmesina* was not valid, then all South America forms should be placed in the genus *Pampatherium*, as they are no more different from each other than is *Pampatherium* from *Holmesina*. This argument is not without merit. However, new characters discovered during the present study, considered together with those previously recognized, provide ample justification for recognition of *Kraglievichia* and *Pampatherium* as distinct genera.

To summarize, the genera of chlamytheres recognized here are: *Machlydotherium* (Eocene, South America); *Vassallia* (Miocene and Pliocene, South America); *Kraglievichia*, including *Plaina* (Pliocene, South America and Plio-Pleistocene, North America); and *Pampatherium*, including *Hoffstetteria* and *Holmesina* (Pleistocene, North and South America).

The most obvious morphological trend in chlamythere evolution since the Miocene has been a consistent increase in size. *Vassallia* is slightly smaller than *Kraglievichia*, which in turn is substantially smaller than