

*Synopsis of the Genera included in the Family PENTACEROTIDÆ.*

- A. Marginal plates conspicuous, defining the ambitus. Abactinal plates in more or less regular longitudinal series, superficially distinct :
  - a. Abactinal plates regular, with more or less definite intermediate papular areas. No intercalated series of plates between the supero-marginal and infero-marginal plates. Prominent mammillated tubercles or spines may be present.
    - a. With large localised mammillated tubercles or spines. Rays carinated. Supero-marginal plates small. Form stellate . . . . . *Pentaceros.*
    - b. With large spines only.
      - a. Supero-marginal plates large. Marginal plates regular and correspondent. Form pentagonal. Rays flat, not carinated. Few spines. Large papular areas . . . . . *Nidorellia.*
      - β. Marginal plates irregular and not correspondent. Form stellate. Many spines. Single pores or very small papular areas . . . . . *Amphiaster.*
  - b. Abactinal plates irregular, large and small intermixed, not forming definite intermediate papular areas. An intercalated series of plates present between the supero-marginal and infero-marginal plates. No prominent mammillated tubercles or spines . . . . . *Pentaceropsis.*
- B. Marginal plates hidden or inconspicuous and not visibly defining the ambitus. Abactinal plates not in superficially discernible longitudinal series.
  - a. Form pentagonal. Plates usually with more or less numerous large tubercular granules.
    - a. With large papular areas. No large marginal plates at the end of the ray . . . . . *Culcita.*
    - b. With papule distributed: not in definite areas. With a pair of large marginal plates at the end of the ray . . . . . *Asterodiscus.*
  - b. Form stellate. Plates devoid of large granules.
    - a. Plates devoid of spines: covered with skin . . . . . *Choriaster.*
    - b. Plates bearing large robust spines . . . . . *Paulia.*

Genus *Pentaceros*, Linck.

*Pentaceros*, Linck, De Stellis marinis, 1733, p. 21.  
*Pentaceros*, Schülze, Betrachtung der vorsteinerten Seeesterne und ihrer Theile, Warchau u. Dresden, 1760, p. 50.  
*Goniaster (pars)*, Agassiz, Mém. Soc. Sci. Nat. Neuchatel, 1835, t. i. p. 191.  
*Pentaceros*, Gray, Ann. and Mag. Nat. Hist., 1840, vol. vi. p. 276.  
*Oreaster*, Müller and Troschel, System der Asteriden, 1842, p. 44.

I entirely concur with Professor Perrier in the justice of maintaining Linck's name of *Pentaceros* for this genus, in preference to Müller and Troschel's name of *Oreaster*, proposed in 1842, on the ground that Linck's name had been applied by Cuvier and