

- b. Monacanthid: Armature of the adambulacral plates consisting of one spine.
- a. Abactinal spinelets isolated, with large pedicellariæ interspersed . . . . . *perrieri*.
- b. Pentactinid: Having five rays.
- a. Diplacanthid: Armature of the adambulacral plates consisting of two spines.
- a. Spiniferous actinal plates contingent on the adambulacral plates, and bearing an oblique series of three spinelets. Spinelets generally with a high-mounting, abruptly-terminating sheath of membrane surmounted by a wreath of pedicellariæ . . . . . *torquata*.
- β. Spiniferous actinal plates well spaced from the adambulacral plates, and bearing only one or two spinelets.
- i. With a vertical lateral wall.
1. Abactinal spines with vesiculated pedicellariæ, forming tuft-like groups. Armature of the adambulacral plates regularly diplacanthid . . . . . *glomerata*.
2. Abactinal spines not surrounded by vesiculated pedicellariæ, and, though pedicellariæ are numerous, they do not form tuft-like groups. Armature of the adambulacral plates alternately or irregularly diplacanthid and monacanthid . . . . . *rubens*.
- ii. With an angular margin. Abactinal spines isolated. Pedicellariæ not vesiculated and more or less distributed.
1. Supero-marginal plates with a single longitudinal series of spines . . . . . *versicolor*.
2. Supero-marginal plates with a grouped series of spines . . . . . *amurensis*.
- b. Monacanthid: Armature of the adambulacral plates consisting of one spine.
- a. Abactinal spinelets isolated, and having large isolated forcipiform pedicellariæ interspersed . . . . . *cunninghami*.
- B. *Asterias sulcifera* group: Several series of actinal intermediate plates present, bearing spinelets which form regular longitudinal and transverse series. Madreporiform body echinoplacid (Bell) . . . . . Sub-gen. COSMASTERIAS.
- a. Abactinal spines vesiculated. Numerous large forcipiform pedicellariæ on the abactinal surface . . . . . *tomidata*.
- b. Abactinal spines not vesiculated. Forciform pedicellariæ absent on the abactinal surface or of rare occurrence and not remarkably large . . . . . *sulcifera*.
- C. *Asterias scalprisfera* group: Armature of the adambulacral and infero-marginal plates consisting of flattened spines, forming transversely or obliquely placed combs. Abactinal plating forming a sub-compact network. Spinelets numerous and grouped . . . . . Sub-gen. SMILASTERIAS.
- a. Armature of the adambulacral plates consisting of three spines. Infero-marginal plates with oblique combs of four spines . . . . . *scalprisfera*.