Subgenus 1. Acostaurus, Haeckel.

Definition.—All twenty spines separated, in the centre united only by the triangular faces or the meeting leaf-shaped edges of their pyramidal bases.

1. Acanthostaurus aequatorialis, n. sp.

Spines cylindrical, of nearly equal breadth throughout their whole length. Apex simple conical. Base with a large leaf-cross. Four equatorial spines of the same form as the sixteen others, but much longer and about three times as broad.

Dimensions.—Length of the four major spines 0.2 to 0.25, breadth 0.008; length of the sixteen minor spines 0.01 to 0.15, breadth 0.003.

Habitat.—Equatorial Pacific, Station 271, surface.

2. Acanthostaurus bipennis, n. sp.

Spines linear, sword-shaped, strongly compressed, two edged; of nearly equal breadth in their whole length. Apex bifid. Base with a small leaf-cross. Four equatorial spines of the same form as the sixteen others, but twice as long and as broad.

Dimensions.—Length of the four major spines 0.4 to 0.5, of the sixteen minor 0.2 to 0.3; breadth of the former 0.02, of the latter 0.01.

Habitat.—North Pacific, Station 244, surface.

3. Acanthostaurus conacanthus, n. sp.

Spines conical, short, gradually tapering from the thick base towards the simple apex. Base with large leaf-cross. Four equatorial spines more cylindrical, twice to three times as long and as broad as the sixteen others.

Dimensions.—Length of the four major spines 0.15 to 0.2, of the sixteen minor 0.05 to 0.08; basal breadth of the former 0.03, of the latter 0.012.

Habitat.—South Atlantic, Station 332, surface.

4. Acanthostaurus purpurascens, Haeckel.

Acanthostaurus purpurascens, Haeckel, 1862, Monogr. d. Radiol., p. 395, Taf. xix. figs. 1, 2.

Acanthostaurus purpurascens, R. Hertwig, 1879, Organism. d. Radiol., Taf. i. figs. 8, 9, Taf. iii. figs. 13, 15.

Acanthometra purpurascens, Haeckel, 1860, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 809.

Spines nearly cylindrical, with four blunt (often scarcely visible) edges, tapering slightly from the central to the distal end. Apex bifid, with two short parallel teeth. Base with a broad leaf-cross.