

contained in a thickened portion of the transverse mesenteries. In *Antipathella subpinnata* the cellular elements of the ectoderm are arranged differently to those in *Antipathes dichotoma*, the clusters of nematocysts, in sections, being usually situated in depressions, instead of in the centre of prominent crenations.

The corallum may be laxly branched with all its subdivisions free, or it may become fan-like, extending chiefly in one plane, in which case the lower portions are always confluent, whilst the upper and terminal ones may be completely fused together or free towards the apex. The spines are usually short, triangular, or conical, but, in *Antipathella subpinnata*, they become elongate and slender on the stronger branches and branchlets.

Synopsis of Species.

- A. Corallum laxly branched, pinnules usually simple, with or without fusion of parts.**
1. Pinnules short, distant, free, not all in one plane; spines triangular at first, becoming conical and ultimately needle-like, *subpinnata* (E. and S.).
 2. Corallum laxly branched, pinnules on all sides, elongate, very slender and free; spines triangular, rather numerous, not in a spiral, *strigosa*, n. sp.
 3. Corallum laxly branched, branches with four irregular rows of short slender pinnules, which are rather distant; spines strong and distant, arranged in unequal sinistrorse spirals, *intermedia*, n. sp.
 4. Corallum branched, with slender paniculate branches, presenting frequent fusions and approaching the characters of section B of this genus; branchlets not all in a plane; spines conical, unequal, disposed in irregular sinistrorse spirals, *boscii* (Lamx.).
- B. Corallum extending chiefly in one plane; branches confluent, paniculate.**
- a. Terminal fronds free.**
1. Whole corallum small and very delicate; spines close-set, short, triangular, compressed, *tristis* (Duch.).
 2. Terminal fronds delicate; spines conical, short, not in a spiral, *gracilis* (Gray).
 3. Terminal fronds delicate; spines conical, short, arranged in open sinistrorse spirals, *atlantica* (Gray).
 4. Terminal fronds strong, tapering; spines short, triangular (?), arranged in verticils, *paniculata* (Duch. and Mich.).
- β. Terminal fronds fused together.**
5. Fronds elongate and narrow; spines conical, pointed, arranged in spirals, *minor*, n. sp.
 6. Fronds broader, but of same type as in sp. 5; spines elongate, conical, not in distinct spirals, *speciosa*, n. sp.
 7. Fronds very broad, delicate; branchlets straight, but otherwise similar to those of sp. 8; spines very numerous and irregular on the pinnules, very thick with a blunt apex, *assimilis*, n. sp.
 8. Fronds broad, delicate, reticulum close, ultimate pinnules setose; spines more elongate, slender, with a sharp apex, *reticulata* (Esp.).
- C. Corallum flattened, but with pinnules not in a plane.**
1. Corallum dense and irregular, the strong portions forming a coarse reticulum; pinnules very slender, simple, pinnate, or bipinnate, radiating in all directions; spines short, triangular, *contorta*, n. sp.