

so that their true position is still uncertain. A number of others, of which the polyps are not known, are also temporarily included, solely from a comparison of their skeletal characters.

Synopsis of Species.

Section I.—Corallum shrub-like, not in one plane, without any regular fusion of parts, but occasionally a few of the branches may be adherent.

- A.** Spines subequal, not longer in the neighbourhood of the polyps.
- a.** Branches spreading, virgate, without slender pinnules.
1. Corallum laxly and irregularly branched, like a spray of broom; branchlets relatively thick; spines very long and closely set, *sarothamnoides*, n. sp.
 2. Corallum irregularly branched, with long, slender, drooping pinnules; spines thorn-like in irregular longitudinal rows, *salix* (Pourt.).
 3. Corallum laxly flabellate, flattened; branchlets long and slender; pinnules all on one side; spines of two very distinct sizes, the smaller regularly distributed between the larger, *fruticosa* (Gray).
 4. Corallum allied to that of *Aphanipathes fruticosa*, in mode of branching; spines arranged in verticils, and covered with sharp spinose processes, *verticillata*, n. sp.
 5. Branchlets long and straight, chiefly in one plane and collected into fan-like groups, simple, or bearing two or three secondary branchlets; spines rough, with a blunt apex, *pedata* (Gray).
- β.** Branches bearing two or more rows of slender pinnules.
6. Stem branched; branchlets bearing two lateral alternate rows of closely-set pinnules, certain of which become elongate and pinnate; spines elongate, broad and flattened, arranged in close dextrorse spirals, *pennacea* (Pall.).
 7. Stem simple, short, bearing relatively long, alternate, simple, closely set pinnules; spines acicular, in irregular longitudinal rows, *eupteridea* (Lamx.).
 8. Stem branched, branches collected into groups, bearing four rows of pinnules, two lateral and relatively close, others from antero-lateral margins, irregular and more distant; spines rough, arranged in irregular dextrorse spirals, *alata*, n. sp.
 9. Stem branched, branches bearing slender pinnules arranged spirally; spines simple, tapering to a slender point, arranged in steep irregular dextrorse spirals, *wollastoni* (Gray, MS.).
 10. Stem simple; branchlets in five equidistant, subhorizontal rows, lower ones bearing one or two simple or forked processes near the base; spines broad and much flattened, *barbadensis*, n. sp.
- B.** Spines longer about the polyps, giving an appearance of successive swellings on the axis.
1. Corallum subflabellate; spines exceedingly long and numerous, forming dense moniliform dilations of the axis in the region of each zooid, *humilis* (Pourt.).
 2. Corallum densely flabellate, branches without regular pinnate arrangement; spines rather short, excepting a few in the neighbourhood of each zooid, which are long and slender, *thyroides* (Pourt.).
 3. Branches regularly pinnate; pinnules lateral, nearly at right angles, short, with spinose processes; longer spines slightly rugose, *felix* (Pourt.).