

[*Antipathes*] *panamensis*, Verrill.

*Antipathes panamensis*, Verrill, Notes on Radiata, No. 6, Trans. Connecticut Acad., 1869, p. 499.

“Corallum arborescent and densely branched, and finely subdivided, small branches mostly bi- and tri-pinnate. Trunk stout, and subdivides irregularly into many branches, which again divide in the same way. Resulting smaller branches arise along the sides of larger branches, at distances of .08 to .20 of an inch—many remaining small, simple, or sparingly divided, but mostly pinnate, bipinnate, or even tripinnate. Final branchlets are .08 to .10 inch apart, small, slender, rather short, rarely more than .15 inch long without branches, scarcely .02 inch diameter. Their surface densely covered with small sharp spinules, directed obliquely outward and towards tip of branchlets. Colour of trunk and main branches dull brownish-black, branchlets very dark brown. Height 13 inches, breadth 10 inches, diameter of trunk .50 inch, of main branches .15 to .25 inch.”

*Habitat*.—Off Pearl Islands, Panama Bay, in 6 to 8 fathoms.

[*Antipathes*] *ulex*, E. and S. (Pl. XI. fig. 5).

*Antipathes ulex*, Ellis and Solander, Zoophytes, p. 100, pl. xix. figs. 7 and 8; Gray, Proc. Zool. Soc. Lond., 1857, p. 292.

?*Antipathes mimosella*, Lamarck, Hist. nat. anim. sans vert., t. ii. p. 307; Milne-Edwards, Coralliaires, t. i. p. 317.

?*Antipathes pinnatifida*, Lamouroux, Polyp. flex., p. 377, pl. xiv. fig. 4; Studer, “Gazelle” Exped., Monatsber. Berlin Akad., 1878, p. 548.

Ellis and Solander’s description of this form is very unsatisfactory:—“*A. ramosissima*, ramis sparsis, patentibus, hispidissimus attenuatis. . . . The branches stand out loose and irregular, and the whole specimen is particularly full of small short spines; axis remarkably black.”

There appears some uncertainty as to the identity of Lamarck’s form *Antipathes mimosella* and of its synonym or close ally *Antipathes pinnatifida*, Lamx. Dana and Gray have both regarded Lamarck’s species as identical with *Antipathes ulex*, E. and S. Lamouroux, on the other hand, in describing his species *pinnatifida*, says that it may agree with Lamarck’s form, but that it certainly differs from Ellis and Solander’s. Lamarck has given us no figure of *Antipathes mimosella*, nor has any subsequent investigator, so far as I can ascertain. A comparison of Ellis and Solander’s figures with those of Lamouroux would lead one to suppose that the two forms are distinct.

In the figure of *Antipathes ulex* the pinnules are represented as slender, spreading, and laxly pinnate, occasionally forked, in which case each fork bears pinnules on one side only. One strong pinnule, almost as thick as the branchlet from which it springs, is in its upper portion bipinnate.

In Lamouroux’s figure of *Antipathes pinnatifida* the pinnules are stronger, subopposite, more closely packed, not so patent, and all, unless very short, are bipinnate, the ultimate