Dana, in his classic work on the Zoophytes (**34**), gives a short résumé of the species already described by Pallas, Esper, Lamarck, and others, and describes and figures two new species. One of these, *Cirrhipathes anguina* (*Cirripathes Sieboldi*, Blainv. ?), he regarded as the *Palmijuncus anguinus* of Rumphius, and adopts Blainville's name as a synonym. The other form, *Antipathes arborea*, is very closely allied to *Antipathes dichotoma*, Pallas.

Dana was the first to recognise the true relationship of the Antipathidæ and their close affinity to the Actiniaria. On page 574 of his work he says:—The Antipathidæ "like the Gorgonidæ secrete a corneous axis, but are placed amongst the Actinoidea as the tentacles have the naked character peculiar to this suborder, and the polyps closely resemble those of Madreporæ in appearance and habit. The existence of genital lamellæ within the visceral cavity is not yet proved; as this is the deciding character, the propriety of the present arrangement cannot be considered fully established." Dana's work contains figures of both his species with the polyps *in situ*. These bring out several new points tending to remove the Antipathidæ still further from the Gorgonidæ. In the first place, his figures show the undoubted naked character of the tentacles, a feature which may have been presumed from Ellis' drawing of the polyp of *Antipathes spiralis*, Pallas, but which he now placed beyond doubt. It was clear from his figures that the tentacles of *Antipathes*, as well as those of *Cirrhipathes*, are not allied either in number or in form to those of the Gorgonidæ. A further point which seems to have escaped comment, but which, nevertheless, is of considerable importance, is that Dana's figures first brought out a difference in the mode of arrangement of the individual zooids on the axis. In his unbranched species, *Cirrhipathes anguina*, the axis is comparatively stout, and the zooids are distributed all around the stem as in *Juncella* and many Gorgonidæ. In the branched form *Antipathes arborea*, on the other hand, the branches and branchlets are relatively slender, and the zooids are distributed in single longitudinal series, usually with their oral surfaces all turned in one direction. In short, Dana's figures are the first, and for a considerable time remained the only ones, which gave any adequate idea of the appearance of a living colony of an Antipatharian.

In 1849 Jules Haime (**35**), the colleague of Milne-Edwards, described, under the name of *Leiopathes lamarcki*, a form which had previously been confused with *Leiopathes glaberrima* (Esper).

Gray's second note on the Animal and Bark of Antipathes (**38**) appeared in 1857. In the earlier one already referred to he had described the appearance of the polyps of a form which he believed to be identical with *Antipathes dichotoma*, Pallas. His specimen was sent from Madeira in a dry state, and showed on the minute branches, at irregular intervals, a number of red pellucid tubercles. These on maceration in water proved to be the polyps, provided with six tentacles, but in other respects supposed to agree with those of *Gorgonia*. He also stated that "minute, pellucid, oval bodies, which