

I am unable to say. His published papers certainly lay stress on the fact that the cœnenchyma of *Antipathes glaberrima*, Esper, which has generally been accepted as his type, contains spicules, and it was not until some years later that Lacaze Duthiers pointed out that these are in reality foreign to it. Milne-Edwards includes this character in the definition given in his work. Gray on the other hand gives in his later definition a character not included in the original, namely, that the "bark" when dry sometimes forms smooth transparent masses at the forks of the branches. In any case this is of minor importance, but so far as I can ascertain, it is characteristic rather of *Antipathes boscii*, Lamarck, than of *Leiopathes glaberrima* (Esper). Gray includes the former species in his new genus, whilst Milne-Edwards does not. I have not seen any specimen in the British Museum which appears referable to *Antipathes boscii*, and for the reason already given I have followed Verrill in regarding it as a spinose species. Milne-Edwards includes three species, viz.:—*Leiopathes lamarcki*, Haime, *Leiopathes glaberrima* (Esper), and *Leiopathes compressa* (Esper); that is to say, all those forms which have been described as possessing a smooth sclerenchyma, but in other respects agreeing with other Antipathidæ. *Leiopathes lamarcki*, Haime, is the *Savaglia* of Donati and the Italians, and is the species which Lacaze Duthiers (44) has shown to differ so essentially from the Antipathidæ that it has been necessary to establish a new family, Savagliidæ (Gerardidæ), for its reception.

*Antipathes compressa*, Esper, cannot be considered to rank as a species; the type specimen only consisted of the base of some large form, which may or may not have been one of the Antipathidæ. Dana suggests that the base of his *Antipathes arborea* agrees with the figure of *Antipathes compressa*, Esper, whilst Gray compares it to the base of *Antipathes myriophylla*. I think, however, that in this reference Gray does not refer to *Antipathes myriophylla*, Pallas, but to a large virgate species in the British Museum, which also bears that name on the label. There is no resemblance to *Antipathes compressa*, Esper, in any of the specimens of *Antipathes myriophylla*, Pallas, which have come under my notice.

Finally, *Antipathes glaberrima*, Esper, in spite of its name, is not a smooth form, as was first shown by Lacaze Duthiers, and afterwards confirmed by Pourtalès and others. The stem and main branches are smooth and polished, but the younger branchlets all bear distinct though somewhat distant spines. Thus both generic and specific names are misleading, and the genus *Leiopathes*, so far as Gray's definition goes, is not a good one. I have, however, been enabled to study the polyps of *Antipathes glaberrima*, Esper, a species which was included amongst the material kindly supplied to me from the Naples Zoological Station, and I find that this species differs structurally from any with which I am acquainted, and possesses characters sufficiently distinctive to demand its allocation in a separate genus. It thus becomes necessary either to retain the genus *Leiopathes* in an amended form or to establish a new one. As it is very desirable to avoid, wherever