

Skeleton.—The main skeleton consists of a dense but quite irregular reticulation of large stylote spicules, the spicules occasionally lying side by side in loose tracts. At the surface there is a thin crust of similar large styli, also densely and very irregularly reticulate and giving support to numerous small stylote or subtylostylote spicules, which project more or less vertically outwards; we have never found these small projecting spicules forming a very dense crust, though in some parts they are very abundant; it is doubtful whether the layer of large styli on which they rest should be regarded as anything more than the uppermost part of the main skeleton.

Spicules.—*Megasclera*; (1) very large, stout, smooth, fusiform styli (Pl. XL. figs. 5, 5a), more or less curved or slightly crooked; tapering fairly gradually to a sharp point at the apex and tapering rather suddenly near the base to a very narrow neck; the base is evenly rounded off at the extremity, and is often so narrow that the spicule becomes nearly oxeote in appearance, but we have never found the base pointed, always rounded off; size about 1.2 by 0.031 mm. (2) Small, slender, nearly or quite straight, gradually and sharply pointed styli or subtylostyli; not markedly narrowing towards the base; size commonly about 0.2 by 0.0063 mm. The mode of occurrence of these two forms of spicules has been noted above.

This species would probably have been included by Mr. Carter in his genus *Leucophlæus*, but we are unable to discern any tangible and constant character whereby the latter genus may be separated from *Hymeniacidon*.

One of the most characteristic features of our present species is the shape of the large stylote spicule, which is very peculiar; it demonstrates that a stylus might readily give rise to an oxeote spicule. The narrowing towards the base of the spicule may also be seen, though not carried to the same extent, in *Leucophlæus fenestratus*, Ridley,¹ especially in one of the varieties. The small surface spicule appears to occur in *Leucophlæus fenestratus* also (though not described), but is much stouter there. In *Leucophlæus proteus*,² Ridley, it appears not to occur, and the large spicule has an ordinary broad, rounded base. The external form of *Hymeniacidon* (?) *subacerata* is quite different from that of *Leucophlæus fenestratus*.

Locality.—Station 208, January 17, 1875; lat. 11° 37' N., long. 123° 31' E.; Philippine Islands; depth, 18 fathoms; bottom, blue mud. Three specimens.

Genus *Phakellia*, Bowerbank (Pls. XXXIV., XXXV., XXXVI., XL.).

1864. *Phakellia*, Bowerbank, Mon. Brit. Spong., vol. i. p. 186, &c.

Sponge more or less flabellate or cup-shaped. Skeleton often more or less reticulate. Megasclera styli and often oxea. No microsclera.

¹ Zool. Coll. H.M.S. "Alert," Brit. Mus., 1884, p. 464, pl. xlii. fig. s.

² *Op. cit.*, p. 620, pl. liii. fig. B; pl. liv. fig. k.