NOTES ON LENDENFELD'S TYPES DESCRIBED IN THE CATALOGUE OF SPONGES IN THE AUSTRALIAN MUSEUM.

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RECENT investigations have demonstrated that a large proportion of the descriptions contained in the "Catalogue of Sponges" are inaccurate, and also that the names attached to some of the exhibited types are calculated to mislead rather than assist the inquiring student. Under the circumstances I have been urged to undertake a revision of the species described in the abovementioned work. The task is beset with many difficulties, somewhat thankless in its nature, and far from being agreeable. In the interest of science it is highly necessary that such a revision should be immediately instituted, in order to prevent further confusion in the nomenclature of our sponge fauna. In undertaking this revision I am fully cognisant of the difficulties presented. In order to render the work reliable, I resolved to examine all the material available, and to take nothing for granted. The course pursued is the same as that adopted in the Report on Sponges from the Coastal Beaches of New South Wales,¹ i.e., to ascertain the whole of the characters of any given specimen before consulting the description, notwithstanding the fact that many of the specimens were obviously wrongly named. In almost every case at least two or more sections have been examined, the spicules measured in situ, and in doubtful specimens the spicules have been boiled out and carefully measured in the free condition. It is rather a peculiar coincidence that so many of the wrongly identified examples should bear such appropriate specific names. A few instances will serve to illustrate this point. Thus there are two specimens labelled Placochalina pedunculata, var. mollis, these upon examination proved to be (1) Chalina palmata and (2) Clathria tenuifibra. The first named consists of a series of flat lamellæ, which are intricately folded, and the specimen bears the The second form manuscript name of Placochalina reticulata.

¹ Whitelegge—Rec. Aust. Mus., iv., 2, 1901.