quently slightly discolored by them. The forms which occurred in such numbers were usually species of the Acanthometridæ; but Polycystina and the compound genera were also numerous. The remains of Radiolarians were found in all deep-sea deposits, usually in very direct proportion to the numbers occurring on the surface and in intermediate water. It was frequently observed, however, that where, in deep water, certain species swarmed on the surface, very few of their skeletons could be detected on the bottom. This applies especially to the Acanthometridæ, and is probably owing to the extreme tenuity of the siliceous wall of their radiating spicules, which may admit of their being dissolved while sinking to a great depth; or possibly the spicules may never become thoroughly silicified, but may retain permanently more or less the condition of acanthin. The Polycystina seem much less destructible, and occur in abundance on the bottom at the greatest depths. Although the Radiolaria are universally distributed—like the Diatoms, but in a less marked degree—they seem to be most numerous where the specific gravity of the water is low; they specially swarm in the warm and comparatively still region of the South-western Pacific and among the islands of the Malay Archipelago, where they are much more abundant than in any part of the Atlantic. I have already given the reasons which led us to the belief that Radiolarians inhabit the water of the ocean throughout its entire depth, or, at all events, its upper and lower portions.

In the investigations with the towing-net, made by Mr. Murray during the latter part of the cruise—at all depths, the nets, being either sent down independently to the depths required, or attached to the dredge or trawl-rope—about thirty species or more were procured of a beautiful group of minute forms approaching, but in many important points differing from, the Radiolarians. This order have apparently hitherto escaped observation, and I retain for the type genus the name *Challengeria*, and for the order that of "Challengerida." This