Remarks.—The general character of the skeleton is that of a Characella; from the other species of this genus it differs in possessing anatriænes and oxyasters. Before examining types in the British Museum, I regarded this sponge as a Stryphnus, with which it has many points in common, and it is possible that further examination may lead to its being placed in that genus.

Pilochrota purpurea (Ridley) (omitted from p. 180).

Stelletta purpurea, Ridley, Voyage of the "Alert," p. 473, pl. xl. fig. E; pl. xliii. figs. j. j., 1885. Stelletta purpurea, var. retroflexa, Ridley, loc. cit., pl. xliii. fig. k.

Sponge.—Free, subspherical, or subovate. Oscule single, circular, about 2 mm. in diameter, leading into a deep cloaca. Surface embossed with small semiglobular elevations. Cortex 0.7 mm. in thickness.

Spicules.—I. Megascleres. 1. Oxea, slender, sharply pointed, 1.5 to 2 by 0.037 mm. 2. Orthotriæne, rhabdome stout, oxeate, 1.4 to 1.6 by 0.045 to 0.06 mm.; cladi 0.27 mm. long. 3. Anatriæne, rhabdome slender, sharply pointed, cladome almost flat in front; rhabdome 2 by 0.035 mm. cladi 0.07 mm., chord 0.1 mm. long.

II. Microscleres. 4. Chiaster, actines slender, seven to ten in number, terminally tylote, centrum absent, diameter 0.02 to 0.025 mm.

Colour.—Purple. Size, about 34 by 26 mm.

Habitat.—Prince of Wales Channel, Thursday Island, and West Island, Torres Strait; depth, 4 to 9 fathoms; bottom, sand, or sand and coral.

Port Darwin; depth, 7 to 12 fathoms; bottom, sand and mud.

Arafura Sea, off north-west coast of Australia; depth, 32 to 36 fathoms; bottom, sand, mud, and shells.

Pilochrota purpurea, var. parvistella (Ridley).

Stelletta purpurea, var. parvispicula, Ridley, Voyage of the "Alert," p. 627, 1885.

Sponge.—Oval, oscule not evident.

Spicules.—I. Megascleres. 1. Oxea, 0.025 mm. in diameter. 2. Orthotriæne, rhabdome 0.032 mm. in diameter. 3. Anatriæne, rhabdome 0.023 mm. in diameter. All the megascleres are slenderer than those of the typical species.

II. Microsclere. 4. Chiaster, actines more numerous than in the typical species, diameter less, 0.007 to 0.0095 mm.

Colour.—Purple. Size, 7.5 mm.

Habitat.—Providence Reef, Mascarene Group, Indian Ocean; depth, 24 fathoms.