owing to the position and size of the marginal plates, which run up nearly vertically from the side of the unusually wide ambulacral groove till they meet the edge of the perisom of the dorsal surface. The marginal plates are thickly covered with rounded scales and bear three rows of spines—one at the upper edge (and this series in combination form a fringe round the dorsal surface of the star-fish), one near the centre, and one a little farther down towards the ventral edge. The ambulacral groove is bordered by obliquely placed combs of spines, short towards the apex and centre of the arm, but becoming longer towards its base, and forming at the re-entering angles between the ambulacral grooves large singularly beautiful pads; each plate bearing a double row of spines, and each spine having a second short spine or scale on the end, an arrangement which adds greatly to the richness of the bordering. The inner spine of each comb on the side of the ambulacral groove is longer than the others, and bears on the end a little oblong calcareous plate usually hanging from it somewhat obliquely like a flag, with sometimes a rudiment of a second attached to it in a gelatinous sheath, which makes it probable that it is an abortive pedicellaria. this character, which is one which cannot escape observation, I have called the species 'vexillifer.' I know no star-fish in which the ambulacral grooves are so wide and the ambulacral tubes so large in proportion to the size of the animal as in this species. The dorsal perisom is closely covered with rosette-like paxillæ. The colour is a pale rose, with a tinge of buff. The ambulacral tubes, which when the animal