

into the Abyssal zone. *Zoroaster ackleyi* and *Zoroaster sigsbeeii* do not extend below the Continental zone, but the former is also found in the deep water of the Littoral zone.

Greatest range of one species: *Zoroaster diomedæ*, 38 to 1555 fathoms.

- γ. *Nature of the Sea-bottom*: *Zoroaster fulgens* and *Zoroaster tenuis* on Blue mud, the former was also found on Red mud off Pernambuco (in 675 fathoms). *Zoroaster diomedæ* on Globigerina ooze. *Zoroaster ackleyi* on coarse sand and broken shells. *Zoroaster sigsbeeii* on fine sand.

The species collected by the Challenger are indicated in the foregoing list by an asterisk.

Chorological Synopsis of the Species herein mentioned.

	Ocean.	Range in Fathoms.	Nature of the Sea-bottom.
<i>Zoroaster fulgens</i>	Atlantic.	500 to 1350.	Blue mud; Red mud.
<i>Zoroaster tenuis</i>	Pacific.	1070.	Blue mud.

1. *Zoroaster fulgens*, Wyville Thomson (Pl. LXVI. figs. 1 and 2; Pl. LXVIII. figs. 1 and 2).

Zoroaster fulgens, Wyville Thomson, *The Depths of the Sea*, 1873, p. 154, fig. 26.

Rays five. $R = 125$ to 130 mm.; $r = 14$ to 15 mm. $R > 8.5 r$. Breadth of a ray at the base, 17 mm.

Rays very long, narrow, subcylindrical, and tapering throughout to a finely pointed extremity; arched on the abactinal surface, and tumid on the actinal surface on each side of the furrow, which is deeply sunken. Interbranchial arcs acute.

The disk is rather higher than the rays and slightly tumid. The calcareous skeleton of the whole test is formed of suboval or subhexagonal plates, disposed in perfectly regular longitudinal and transverse series. The following is the arrangement they present. Surrounding a dorso-central and five small radially placed under-basal plates, are five large basal plates interradiar in position; and outside and alternating with these are five similar but rather smaller radially placed plates, the primary radials. Outward from each of the radial plates proceeds a longitudinal series of plates which extends along the median abactinal line of the ray, each plate regularly subhexagonal in form, and touching or slightly imbricating upon its next serial companion. On each side of this median line of plates is a parallel line of smaller plates, and these are succeeded by a series of plates nearly equal in size to those of the median line; the outer of these lines standing on the convexity, which separates the abactinal and lateral areas of the ray. Between this series