

Genus 191. *Heliosestrum*,¹ Haeckel, 1881, Prodrömus, p. 457.

Definition.—Phacodiscida with simple medullary shell and with eight radial spines on the margin of the disk (more or less regularly disposed, sometimes seven or nine).

The genus *Heliosestrum* (with simple medullary shell) and the following *Astrosestrum* (with double medullary shell) contain those Phacodiscida in which the margin of the lenticular disk bears eight radial spines, commonly more or less regularly disposed in the equatorial plane, so that the equal angles between them amount to 45°. There are, however, many exceptions to this regular eight-rayed form, either the angles between the eight spines becoming unequal or the number of the spines amounting to seven or nine (sometimes also six or ten) in one and the same species. But the regular form is so prevalent, and also in the abnormal forms indicated by the position of the spines, that we separate the genus *Heliosestrum* from *Heliodiscus*. Both genera are rich in common species, and in some of the former four perradial (larger) spines alternate regularly with four interradial (smaller) spines.

Subgenus 1. *Heliosestantha*, Haeckel.

Definition.—Surface of the disk smooth, without radial spines. Bases of the marginal spines free, not connected by an equatorial girdle.

1. *Heliosestrum medusinum*, n. sp. (Pl. 34, fig. 6).

Heliodiscus medusinus, Haeckel, 1881, Atlas (pl. xxxiv. fig. 6).

Disk with smooth surface, four times as broad as the medullary shell. Pores regular, circular; about ten on the radius of the disk. Eight marginal spines regularly distributed (sometimes seven or nine, more or less irregular), angular, nearly pyramidal (with equilateral triangular outline), about as long and broad as the diameter of the medullary shell, without connecting equatorial girdle. From the broad base of each spine run eight to ten deep furrows convergent to its apex.

Dimensions.—Diameter of the disk 0.2, of the medullary shell 0.05; length of the radial spines 0.05, basal breadth 0.05.

Habitat.—North Pacific, Station 266, surface.

2. *Heliosestrum octastrum*, n. sp.

Disk with smooth surface, three times as broad as the medullary shell. Pores irregular, roundish; eight to nine on the radius. Eight marginal spines regularly distributed (sometimes

¹ *Heliosestrum* = Sun-sieve; ἥλιος, σῆστρον.