

(as in many Medusæ) four larger perradial spines alternating with four smaller inter-radial spines. Often in one and the same species occur abnormalities in number and disposition of the radial spines, three or five spines instead of four, or also seven or nine spines instead of eight; often both halves of the disk become asymmetrical. If the number of the marginal spines exceed eight to ten, they commonly become very variable in size and irregular in disposition; these variations characterise the third subfamily, *Heliodiscida*. Commonly also here all spines lie in the equatorial plane; but sometimes they become crowded in several parallel circles on both sides of the margin (Pl. 32, fig. 1). The form of the marginal spines is commonly conical or flattened triangular, often also pyramidal or deeply furrowed (Pl. 31, figs. 6-9). Very rarely the spines are fenestrated (Pl. 35, fig. 1); only in one genus (*Heliodrymus*) they are all or partly branched (Pl. 33, fig. 9; Pl. 35, figs. 3, 5).

The peculiar development of the phacoid shell has been already described by J. Müller (compare my Monograph, 1862, pp. 156, 438).

*The Central Capsule* of the *Phacodiscida* is everywhere circular, lenticular, envelops the medullary shell, and is enclosed by the phacoid shell, perforated by the radial beams, which connect the latter to the former.

*Synopsis of the Genera of the Phacodiscida.*

I. Subfamily <i>Sethodiscida</i> . Margin of the disk without radial spines.	} Margin simple, without equatorial girdle.	{	Medullary shell simple, . 181. <i>Sethodiscus</i> .
			Medullary shell double, . 182. <i>Phacodiscus</i> .
	} Margin surrounded by a hyaline equatorial girdle.	{	Medullary shell simple, . 183. <i>Periphana</i> .
			Medullary shell double, . 184. <i>Perizona</i> .
II. Subfamily <i>Heliosestrida</i> . Margin of the disk with two to eight solid radial spines, usually quite regu- larly disposed. (Number usually constant.)	} Two radial spines (opposite in one axis).	{	Medullary shell simple, . 185. <i>Sethostylus</i> .
			Medullary shell double, . 186. <i>Phucostylus</i> .
	} Three radial spines.	{	Medullary shell simple, . 187. <i>Triactiscus</i> .
			Medullary shell double, . 188. <i>Sethostaurus</i> .
	} Four radial spines (in cross form).	{	Medullary shell double, . 189. <i>Phacostaurus</i> .
			Medullary shell simple, . 190. <i>Distriactis</i> .
	} Six radial spines.	{	Medullary shell simple, . 191. <i>Heliosestrum</i> .
			Medullary shell double, . 192. <i>Astrosestrum</i> .
III. Subfamily <i>Heliodiscida</i> . Margin of the disk with numerous (ten to twenty or more) radial spines, usually irregularly dis- posed. (Number variable.)	} Radial spines all simple, not branched.	{	Medullary shell simple, . 193. <i>Heliodiscus</i> .
			Medullary shell double, . 194. <i>Astrophacus</i> .
	} Radial spines all or partly branched.	{	Medullary shell simple, . 195. <i>Heliodrymus</i> .