

disposed in the sagittal plane. The ventral rod is strongly curved, often semicircular, the dorsal rod less curved or nearly straight.

*Dimensions.*—Diameter of the gate 0.05 to 0.07; length of the spines 0.004 to 0.02.

*Habitat.*—Cosmopolitan—Atlantic, Pacific; also fossil in Barbados.

11. *Zygocircus bütschlii*, n. sp.

*Zygocircus productus*, Bütschli, 1882, Zeitschr. f. wiss. Zool., vol. xxxvi. p. 497.

Gate obliquely ovate. Ring irregularly roundish, semi-ovate or ovate, with interrupted and distorted edges, and with a large number (ten to twenty or more) of simple, irregularly formed and asymmetrically disposed spines; commonly some larger spines at the base.

*Dimensions.*—Diameter of the gate 0.05 to 0.09; length of the spines 0.005 to 0.02.

*Habitat.*—Fossil in Barbados.

12. *Zygocircus productus*, Bütschli.

*Zygocircus productus*, Bütschli, 1882, Zeitschr. f. wiss. Zool., vol. xxxvi. p. 496.

*Lithocircus productus*, R. Hertwig, 1879, Organismus d. Radiol., p. 69, Taf. vii. fig. 4.

Gate obliquely ovate. Ring obliquely ovate, with three complete prominent edges and with numerous (ten to twenty or more) simple, short conical spines, arising in three series from the three edges; commonly some smaller spines at the base.

*Dimensions.*—Diameter of the gate 0.1 to 0.2; length of the spines 0.005 to 0.02.

*Habitat.*—Cosmopolitan; Mediterranean, Atlantic, Pacific, surface.

Genus 404. *Dendrocircus*,<sup>1</sup> Haeckel, 1881, Prodrömus, p. 447.

*Definition.*—Stephanida with a simple dipleuric or bilateral ring, armed with branched spines, without typical basal feet.

The genus *Dendrocircus* has the same dipleuric or bilaterally symmetrical form of the sagittal ring as its ancestral genus *Zygocircus*. It differs from the latter in the development of branched radial spines, and therefore bears to it the same relation as the amphithect *Lithocircus* does to the simpler *Archicircus*.

1. *Dendrocircus quadrangulus*, n. sp.

Gate irregularly quadrangular or nearly semicircular. Ring quadrangular, edgeless, with four unequal sides; ventral rod more curved and with longer sides than the dorsal rod. From the four edges arise four strong, irregularly branched spines, about as long as the diameter of the gate,

<sup>1</sup> *Dendrocircus* = Ring bearing trees; δένδρον, κίρκος.