smooth, or at most somewhat rough towards the pointed ends, while the delicate, freely projecting, fir-tree-like distal, which is two or three times longer, is beset with oblique outwardly directed prongs, and runs gradually to a point towards the outer extremity (Pl. XXVI. fig. 9).

The specific name I have given is in honour of my friend and former colleague in Graz, Professor Gurlitt.

Family III. Rossellidæ (Pls. LIII.–LXIX.; Pl. CII.).

Goblet- or beaker-shaped, with walls of varying thickness. Some rest either directly, or by means of a longer or shorter cylindrical stalk, upon a solid basis, others are rooted in mud by means of a basal mass of spicules. The external surface of the body is in some smooth and naked, in others armed with prominent pleuralia of varying length. The simple wide gastral cavity opens by a simple, round, more or less broad, oscular aperture, the margin of which is either naked or armed with a border or circlet of spicules. A special characteristic of the family is to be found in the fact that the distal ray of the dermalia *is always absent.* The dermalia occur as pentacts, tetracts, diacts, or even monacts. The gastralia have usually no freely projecting proximal ray, but in some cases they occur as fully developed hexacts.

Genus 1. *Lanuginella*, O. Schmidt (Pl. LIII. figs. 3–5).

1869. O. Schmidt, Mittheil. des naturw. Vereines für Steiermark, pp. 89, 261.
1870. O. Schmidt, Grundzüge einer Spongienfauna des atlant. Gebietes, p. 13.
1870. Sav. Kent, Monthly Micr. Journ., vol. iv. p. 247.

On a specimen of *Aphrocallistes* from St. Iago, one of the Cape Verde Islands, Oscar Schmidt found in 1870 some small spherical or ellipsoidal sponges of very elastic consistence, exhibiting a central cavity and a wide superior osculum. The outer surface, apart from spicules projecting here and there, was smooth—just as if varnished. The interior contained, according to O. Schmidt, prominent, smooth or finely spinose hexacts and simple oxydiacts with intersecting axial canals. In the outer layers, between the projecting needles, hexasters occurred in which each of the short principal rays was soon divided into four or five tuberculated branches, with transverse terminal plates. In the external dermal layer, and at the margin of the osculum, numerous sexradiate spicules occur, besides quadriradiate forms filling up the interspaces, and in part provided with sharply cornered knotted extremities. The smoothness of the outer surface seemed to be due to these four-rayed spicules.

Oscar Schmidt named the newly discovered Hexactinellid *Lanuginella*, because it