

but, as in most *Carpophagine* birds, is small, and has its muscular walls comparatively ill-developed. No stones of any kind were found in it.

It is the epithelial lining which is so peculiar in *Carpophaga latrans*. Instead of being smooth, or folded into plications, as is usually the case, its surface is raised into horny cones which closely resemble in appearance the tubercles for the attachment of the spines of the Echinoderm genus *Cidaris*. In fig. 1, *a*, the interior of the gizzard is represented; fig. 1, *b*, is a section of one of the cones resting upon the muscular gizzard-wall.

These conical processes are corneous throughout, are erect, and are quite transparent when cut into sections. There are twenty-three of them, large and small, in each of my specimens. The larger ones, which are the more numerous, average seven millimetres in diameter at their bases, their axial length being about four millimetres; the smallest cone is four millimetres across and of nearly the same height.

The cones are arranged, close to one another, in a fairly regular manner upon the muscle-masses, being distributed in rows of three, counting either transversely or longitudinally. This disposes of eighteen of the twenty-three cones. The remaining five are found on the tendinous intermuscular walls of the organ, in longitudinal rows, two in one row, three in the other.

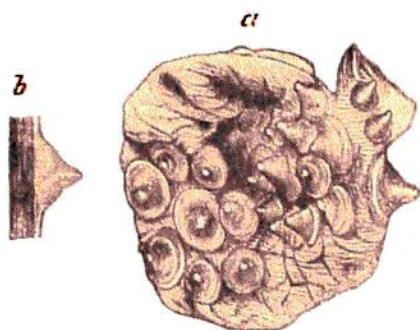


Fig. 1.

Interior of the Gizzard of *Carpophaga latrans*.

Fig. 2.

Syrinx of *Carpophaga latrans*.

A section of any one of the cones demonstrates that it is not in the least ossified, but corneous throughout, and of about the density of ox-horn. It is also seen that the attached surface of the epithelium does not participate in the undulations of the free surface, being quite smooth. Neither does it send any processes into the cones. Between the cones the epithelium is yielding, and only semicorneous.

A still further exaggeration of this abnormal condition of the epithelium of the gizzard of *Carpophaga latrans* has been described by MM. Jules Verreaux, and O. Des Murs in *Phanorhina goliath*¹ of New Caledonia, which "se nourrit de graines de *semicarpum*." In this bird "le gosier, déjà on ne peut plus musculeux par lui-même, a sa surface intérieure régulièrement recouverte . . . de pointes véritablement osseuses, rappelant la forme de celles qui se voient à la surface du corps de la *Raia* bouclée, ou *Clavel*, ou *Clavclade*. Ces pointes, en cône aplati, ont leur base plane de 5 millim. de diamètre, d'une hauteur de 5 à 6 mill., sont légèrement inclinées sur elles-mêmes, et quelquefois recourbées par la dessiccation, l'extrémité en étant mousse." A central fibrous peduncle is also said to run through each osseous element.

¹ Revue et Magasin de Zoologie, 1802, p. 108.