

Genus 5. *Lithactinia*, Lesson.*Lithactinia*, Lesson, Illustr. Zool. Paris, 1831.

,, Milne-Edwards and Haime, Cor., iii. p. 28.

,, Duncan, Rev. Madrep., p. 146.

This genus is undoubtedly very closely related to *Polyphyllia*. Very few forms of the two genera are known on which to base comparisons, and of these it is certain that injury to the colony during the growth of many of them has considerably interfered with and obscured the true character of the form. Owing to the very porous and fissured structure of the basal wall, and to the thinness of the corallum in these specimens, which are all unattached, such injury with consequent malformation is very liable to occur.

Two species are in the collection.

1. *Lithactinia pileiformis* (Dana).*Polyphyllia pileiformis*, Dana, Zoophytes, p. 317, pl. xxi. fig. 4.

Two specimens were obtained. They are dish-shaped or basin-shaped, with one side much drawn out, so as to give in the larger specimen a length of 15 cm. and a breadth of 9 cm. Both specimens are peculiar in that they give the appearance of having been broken during life, while growth has continued around the edges of a rather large fractured piece, so that the added portion is continuous with the original part. This is borne out by the fact that the septa and costæ in the lateral pieces are not in the same line with those of the more central portion and do not radiate from a common centre, but are directed more or less at right angles to them. In both specimens also, and apparently confined to the original fractured piece, a very short, more or less subradiate, calicular trench is indicated, but not placed so as to be median to the whole corallum. The costæ in this species are very distinct, denticulate and rough, irregularly confluent, and separated by narrow, elongated fissures.

*Locality*.—Reefs, Fiji; brought alongside the ship by natives off Kandavu.

2. *Lithactinia galeriformis* (Dana).*Polyphyllia galeriformis*, Dana, Zoophytes, p. 317, pl. xxi. fig. 3.

Two specimens were obtained. One, the larger, is conically cap-shaped, drawn out laterally so as to give a length of nearly 13 cm. and a breadth of nearly 9 cm. The second is smaller and broadly saucer-shaped, but irregular. They both present the same appearance, due to fracture, as in the *Lithactinia pileiformis*; but there is in no part any indication of a subradiate calicular arrangement.

The species is very close to the preceding, but differs markedly in its much thinner