Calyptrophora josephinæ, Lindström,[1] with the polyps bent downwards. It is also possible that *Primnoa regularis*, Duchassaing and Michelotti,[2] not only belongs to this genus, but an inspection of the remains of the original specimen in the Turin Museum makes it just possible that *Stachyodes regularis* equals *Primnoa regularis*. For this species Dr. Gray has made the genus *Narella*,[3] and places it between *Stenella* and *Primnoella*. The definition is, however, unintelligible, and is certainly not diagnostic of the species from Guadeloupe. Dr. Studer emended the diagnosis of Dr. Gray's genus, and included in it two new species,[4] which would not be included in *Stachyodes*. Dr. Kölliker includes *Primnoa regularis*, D. and M., among the species of *Primnoa* as diagnosed by him,[5] and, from the measurement of the spicules of the polyp given by him, these would in the form from the Atlantic indicate a smaller species than the one now described from the Pacific Ocean.

Genus 3. *Stenella*, Gray (*emend.*).

Stenella, Gray, Cat. Lithophytes Brit. Mus., p. 48, 1870.

This genus was established by Dr. Gray for *Primnoa imbricata*, Yate Johnson. A comparison of the type species shows that it has very close affinities to *Thouarella*, which was established by the same author for *Primnoa antarctica*, Val., and it is possible that a more extended knowledge of the species will result in the two genera being merged into one. For the present the arrangement of the polyps on the branches will serve as a convenient distinction. In *Stenella* they are opposite and in whorls, in *Thouarella* they are alternate and arranged in spirals. The axis is hard, in a young stage horny, fibrous, but soon becomes dense with calcareous material; under the cœnenchyma it is often highly iridescent. The base, so far as known, is attached by a calcareous disc to Corals or stones. The axis is feebly or much and irregularly branched. The cœnenchyma is thin, with large disc-like spicules, often deeply concave with turned up edges, and attached to the cœnenchyma by the central concave portion. In an attached specimen a thin layer of cœnenchyma with spicules spreads over the Coral to which the *Stenella* axis adheres. The polyps are large, prominent, in whorls of two or four. The bodies of the polyps are enclosed in several rows of large, imbricating scale-like spicules, of which the row (preopercular) just below the opercular scales, forms a more or less complete investing calyx. The opercular scales are eight in number, symmetrical, and fold completely over the retracted tentacles. Sometimes they form a conical and projecting, at other times a more or less flattened operculum.

[1] *K. Svensk. Vetensk. Akad. Handl.*, Bd. xiv. No. 6, p. 6, 1877.
[2] Duchassaing et Michelotti, Mém. sur les Coralliaires des Antilles, p. 17, pl. i. figs. 12, 13.
[3] Cat. Lithophytes Brit. Mus., p. 49.
[4] *Monatsber. d. k. preuss. Akad. d. Wiss. Berlin*, 1878, p. 643.
[5] Icones Histiologicæ, p. 135, 1865.