

with complete variceal flanges, having a slightly taller spire and markedly larger nodules than most specimens referred to *P. laetifica*, but strikingly similar to *P. laetifica* in spiral sculpture and overall appearance. Also, the New Zealand Oceanographic Institute "North-West Slope Benthos" Cruise of October, 1968, trawled two well-preserved, dead, stained specimens of *Pteropurpura* very similar to *P. laetifica* at Station E875, in approximately 480m, off Ninety-Mile Beach, Northland.

As the fossil specimens of *P. flemingi* are badly broken, few criteria could be used to compare them with the Recent shells. The only useful measurable characters were the height of the spire (measured from inside the top of the aperture) and the diameter of the third- and fourth-to-last intervariceal spaces (measured from the base of the varix of the third-to-last space to the most inflated part of the fourth-to-last space, as shown in Text-fig. 1). Comparison of these on a graph (Text-fig. 2) showed that all fell within very narrow limits of variation except the holotype of

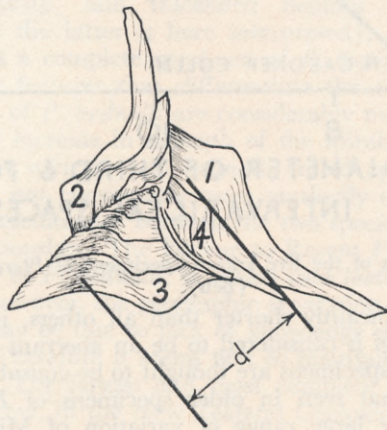


FIG. 1.—Sketch of apical view of Mr and Mrs N. W. Gardner's specimen of *Pteropurpura laetifica flemingi*, to show how the diameter of the third- and fourth-to-last intervariceal spaces (d) was measured for Table I and Text-fig. 2. Intervertebral spaces are numbered (1-4) backwards from the youngest one.

FIGS. 10-12.—*Pteropurpura kauparaensis* (Fleming). Figs. 10, 11.—holotype, Pakaurangi Pt., Kaipara Harbour, Northland (Otaian?); P. Marshall Collection; New Zealand Geological Survey, TM3079; 28.3 × 14.5mm. Fig. 12.—N28/861, Coates' Bay, Pakaurangi Pt., Kaipara (Otaian); Auckland University Geology Department, G5831; 19.1 × 15.0mm.

FIGS. 13-15, 18.—*Pteropurpura laetifica laetifica* (Finlay). Fig. 13.—juvenile with some varices complete, V572, North Bank, Clifden, Southland (Clifdenian); Victoria University Geology Department, VM885; 20.0 × 13.0mm. Figs. 14, 15.—shoulder spine of a large shell, showing shallow posterior canal; GS10343, Nissen Shellbed 1, Clifden, Southland (Waiauian); New Zealand Geological Survey, TM4819; 29.8 × 17.7mm. Fig. 18.—shoulder spine from a large shell, showing shallow posterior canal; GS10343, Nissen Shellbed 1, Clifden (Waiauian); New Zealand Geological Survey, TM4820; 21.0 × 19.9mm.

FIGS. 16, 17, 19-26.—*Pteropurpura laetifica flemingi* (Beu). Figs. 16, 17.—holotype, V888, cliffs east of Whangaimoana, Palliser Bay (Mangapanian); Victoria University Geology Department, VM231; 20.0 × 12.8mm. Figs. 19-22.—New Zealand Oceanographic Inst. station E875, off Ninety-Mile Beach, Northland, in 482-485m, specimens in New Zealand Oceanographic Inst.; figs. 19, 20.—34.0 × 19.7mm; figs. 21, 22.—35.0 × 19.9mm. Figs. 23-26.—specimen in N. W. Gardner Collection, trawled between North Cape and Three Kings Islands, 21.4 × 13.2mm; figs. 24 and 26 are same views as figs. 23 and 25 respectively, shell coated with ammonium chloride.