

PLATE 1. *Lepidopora sarmentosa* (a, b, holotype, F132; c-g, *Eltanin* 1857, USNM 60135): a, b, anterior and posterior faces of holotype colony, x 3.6; c, branch tip, x 24; d, gastropore lip, x 43; e, gastrostyle, x 132, stereo pair; f, dactylopores surrounding a gastropore, x 52; g, dactylopore, x 160, stereo pair.

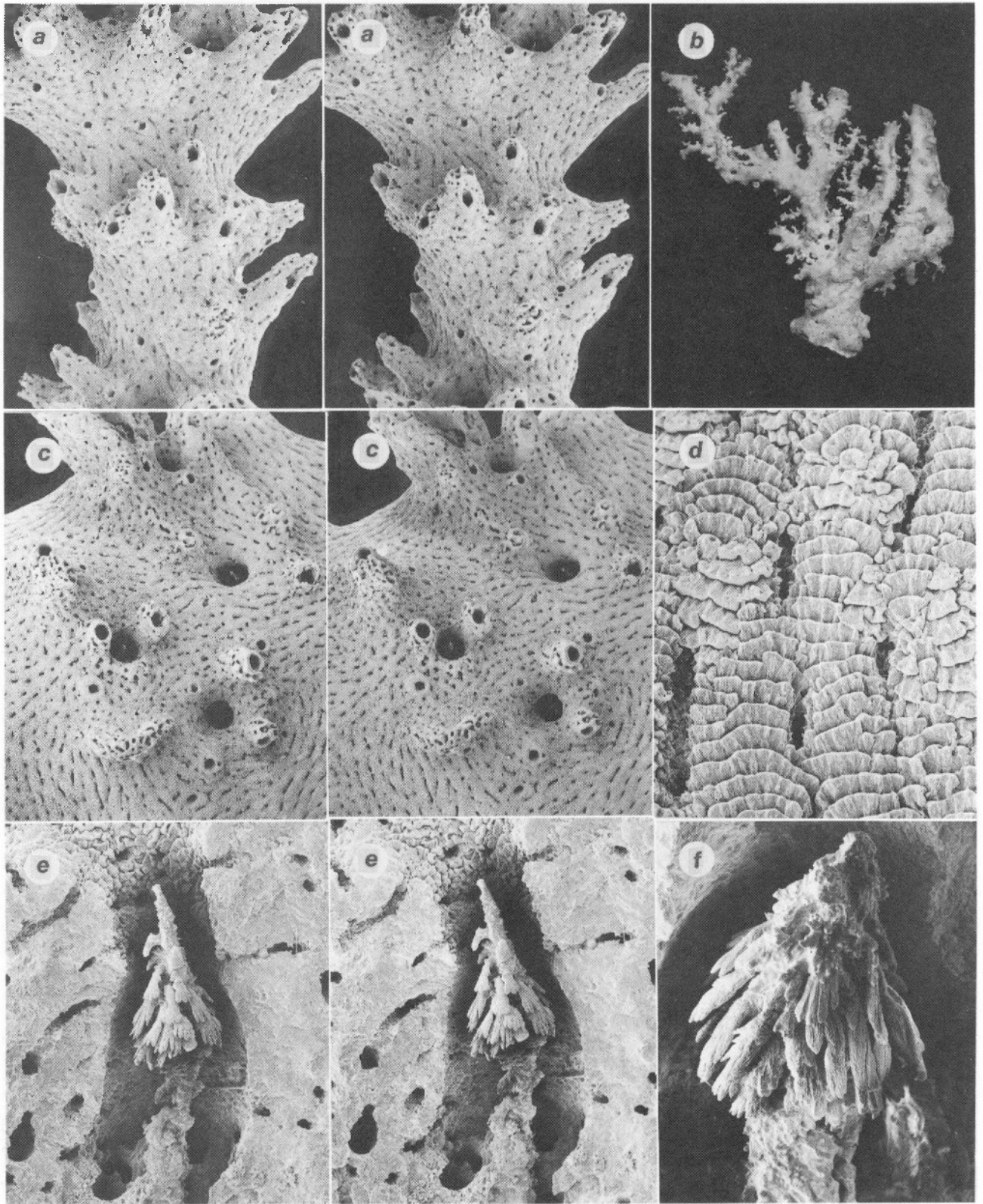


PLATE 2. *Lepidopora dendrostylus* (a, S53, USNM 85085; b, holotype, F146; c-e, A910, USNM 60251; f, F146, USNM 85084): a, branch tip bearing compound dactylopores, x 23, stereo pair; b, holotype colony, x 0.57; c, gastro- and dactylopores and linear-imbricate coenosteal texture, x 22.5, stereo pair; d, linear-imbricate coenosteal texture, x 180; e, f, gastrostyle, x 96, x 185, respectively (e is a stereo pair).

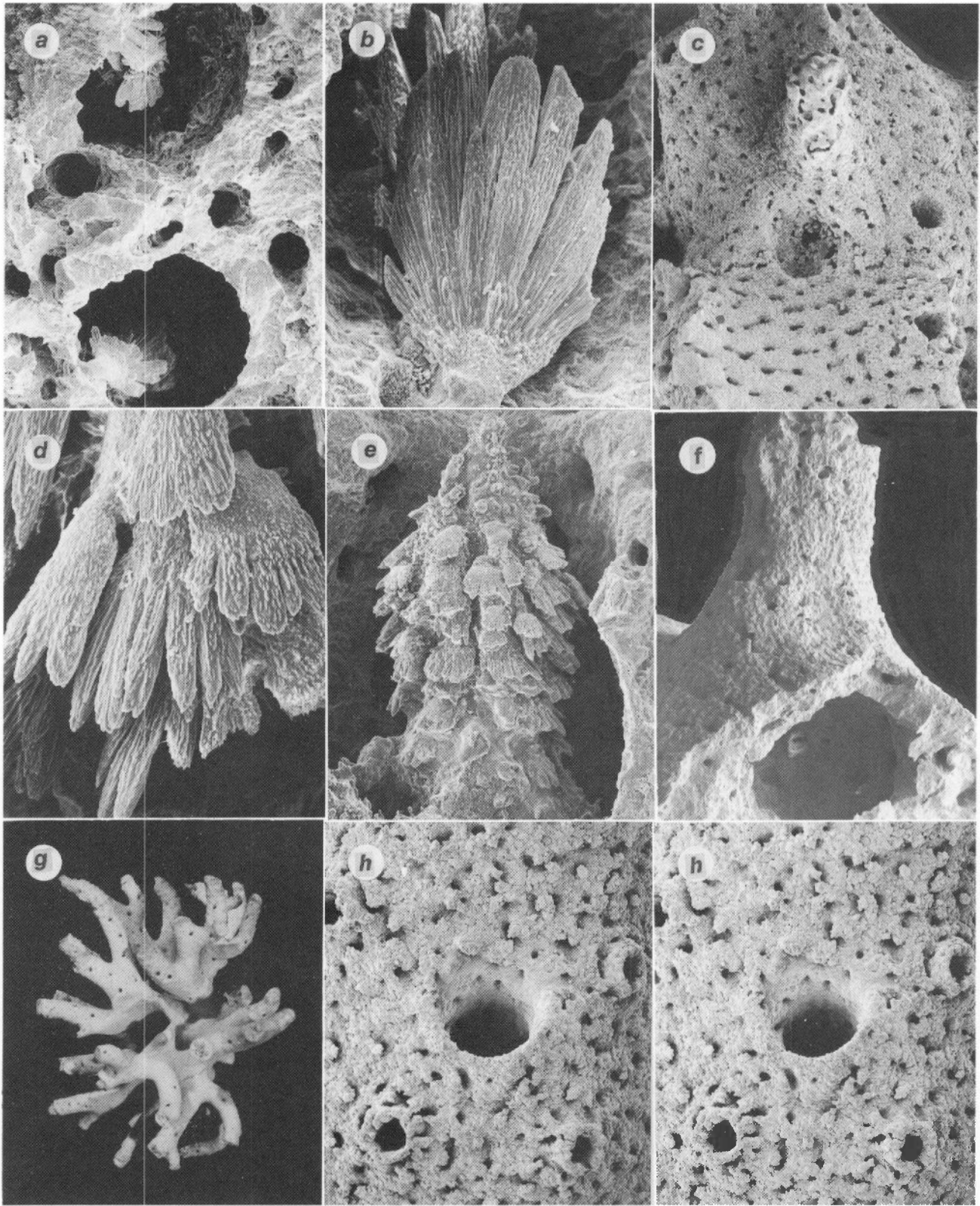


PLATE 3. *Lepidopora dendrostylus* (a–c, d, A910, USNM 60251; e, f, S573, NZOI): a, two dactylostyles, x 255; b, dactylostyle, x 570; c, female efferent pore, x 48; d, gastrostyle frond, x 660; e, gastrostyle, x 180; f, male ampulla and ampullar spine, x 83. *Lepidopora microstylus* (g, holotype, T243; h, E860, NZOI): g, holotype colony, x 2.2; h, gastropore and three dactylopores, x 70, stereo pair.

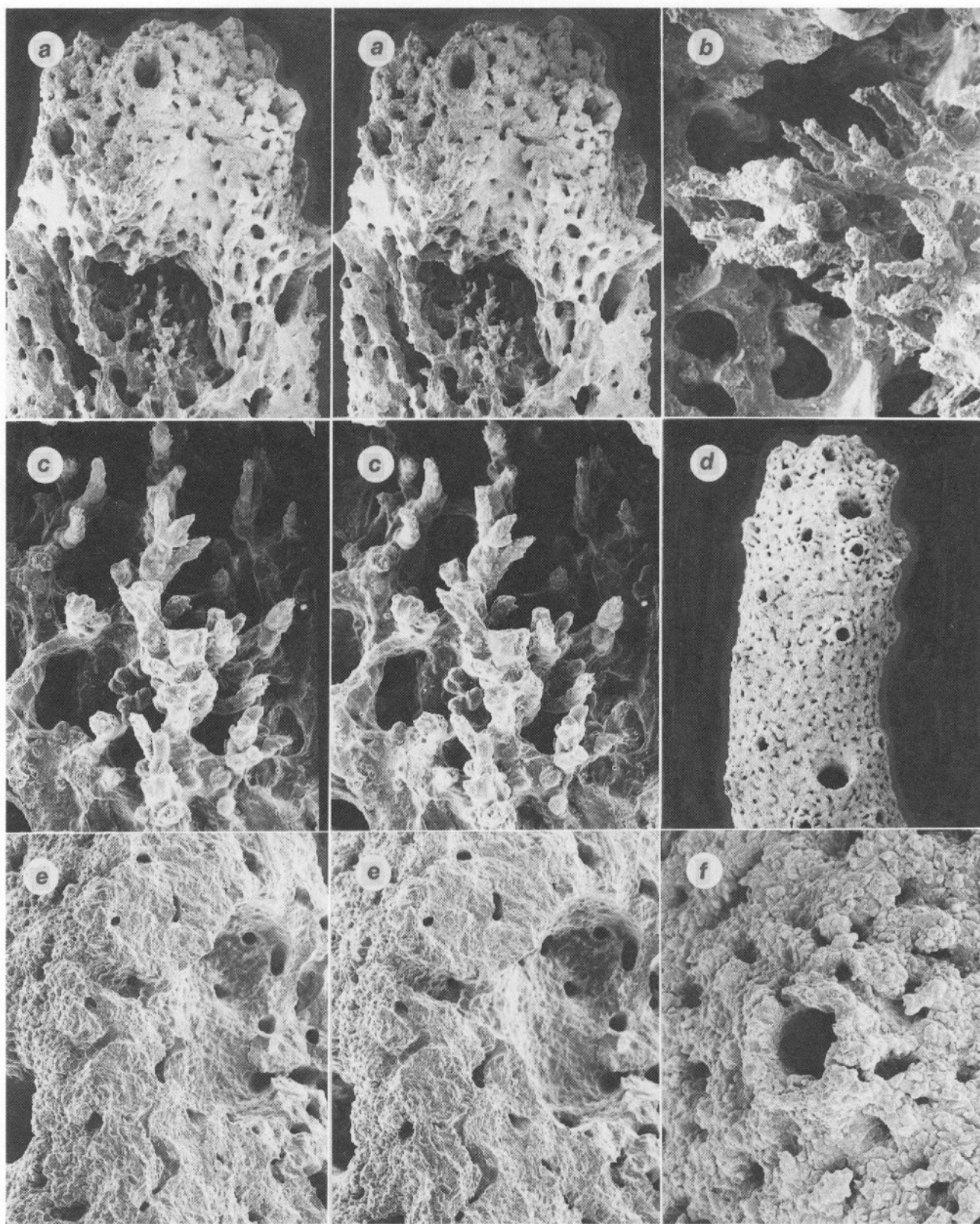


PLATE 4. *Lepidopora microstylus* (a, c-f, E860, NZOI; b, T243, USNM 85086): a, gastropore chamber and rudimentary gastrostyle, x 58, stereo pair; b, c, gastrostyle, x 205, x 225, respectively (c is a stereo pair); d, branch tip illustrating two gastropores and dactylopores, x 28; e, internal male ampulla and efferent tube leading to surface (at left), x 120, stereo pair; f, dactylopore, x 170.

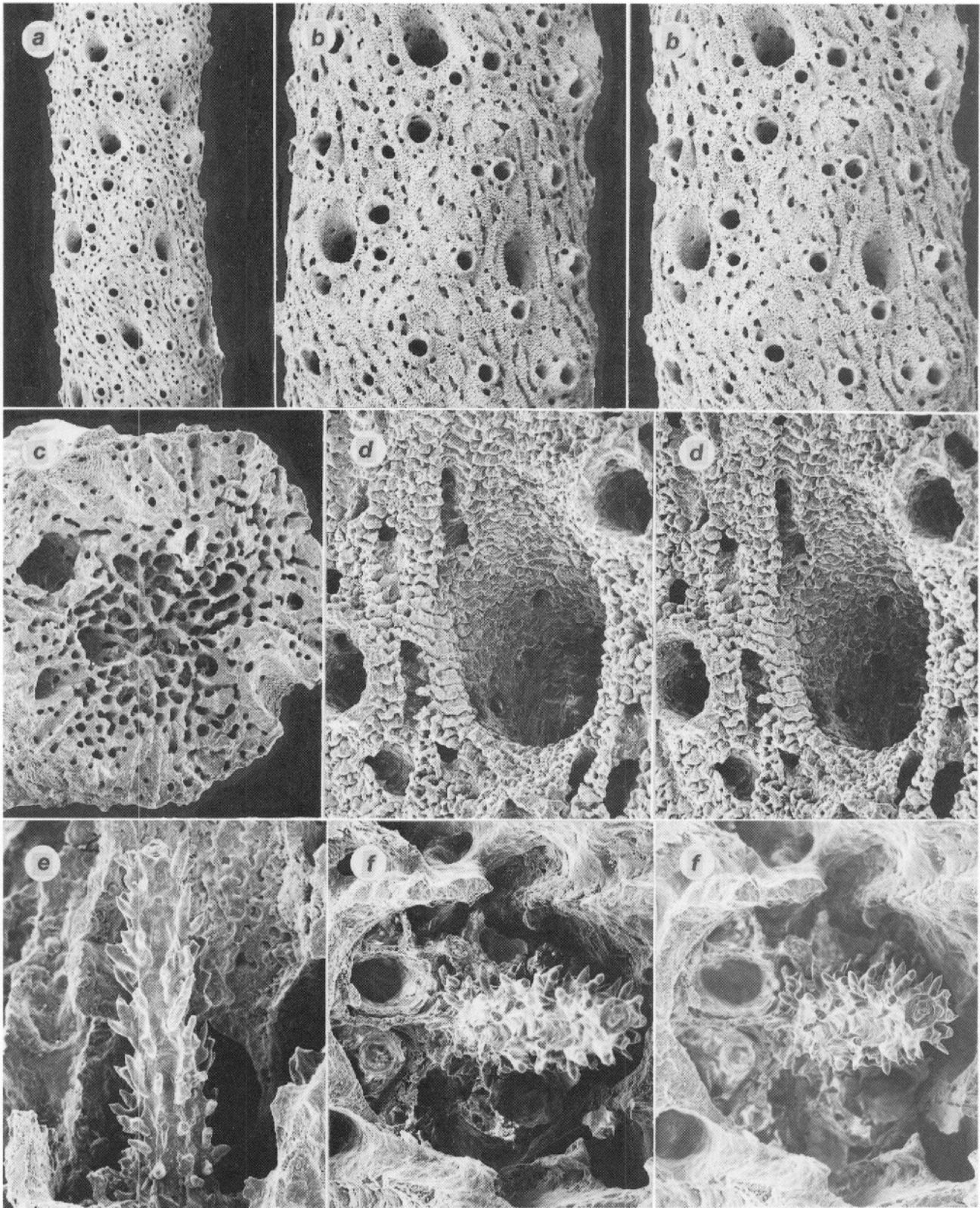


PLATE 5. *Lepidopora symmetrica* (a-f, holotype, E305): a, b, branch illustrating gastro- and dactylopores and coenosteal texture, x 14, x 29, respectively (b is a stereo pair); c, branch cross section illustrating porosity of branch core, x 33; d, gastropore and coenosteal texture, x 115, stereo pair; e, f, gastrostyle, x 190, x 205, respectively (f is a stereo pair).

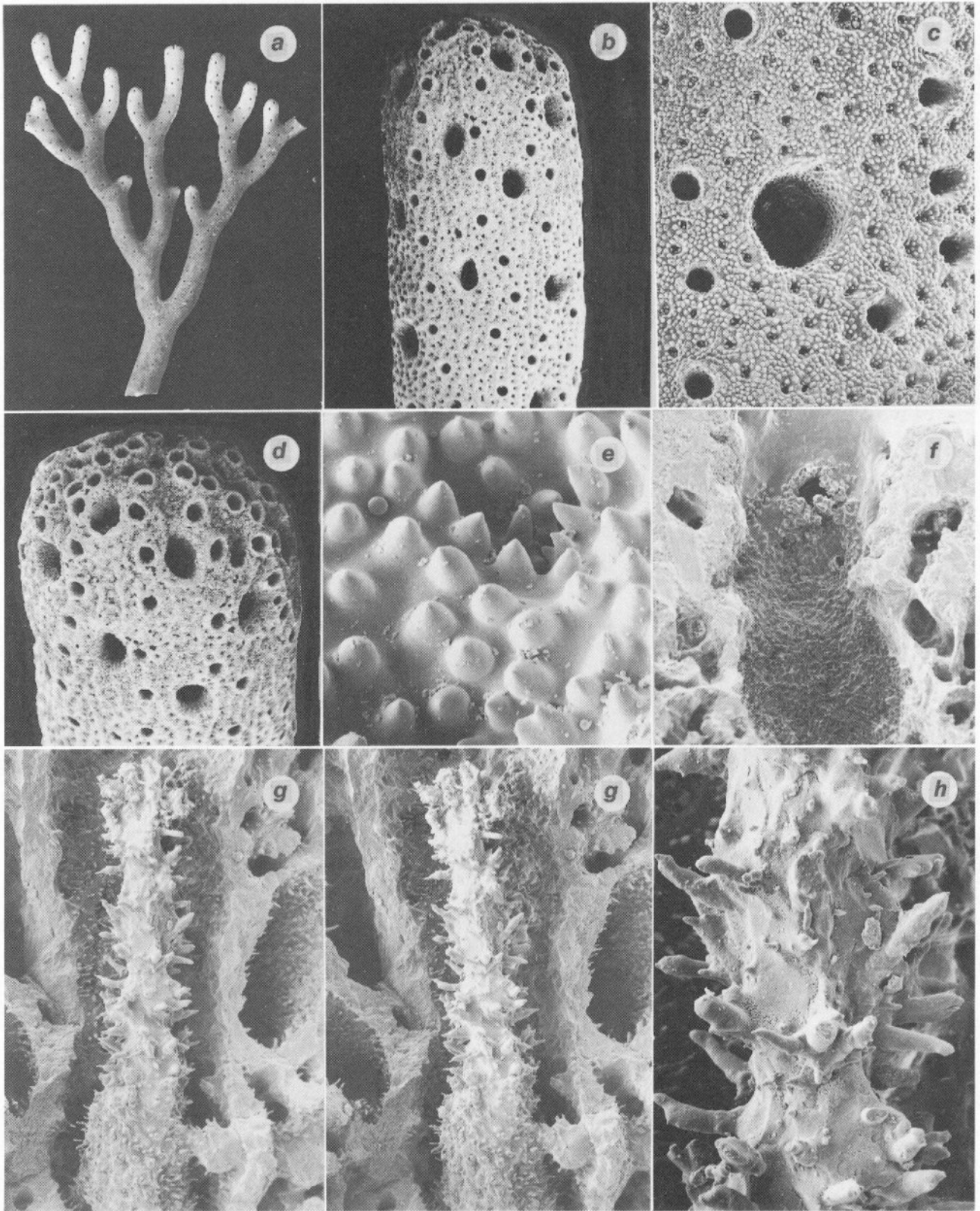


PLATE 6. *Lepidopora cryptocymas* (a, e, g, h, E846, USNM 85087; b, d, f, P559, USNM 72345; c, E305, USNM 72342): a, largest colony, x 0.95; b, d, branch tip illustrating gastropores and aligned dactylopores, x 14.5, x 20, respectively; c, gastropore flanked by two rows of dactylopores, male efferent pore at top, x 43; e, spinose coenosteal texture, x 510; f, longitudinal section of a gastropore tube illustrating a female efferent pore, x 95; g, h, gastrostyle, x 105, x 325, respectively (g is a stereo pair).

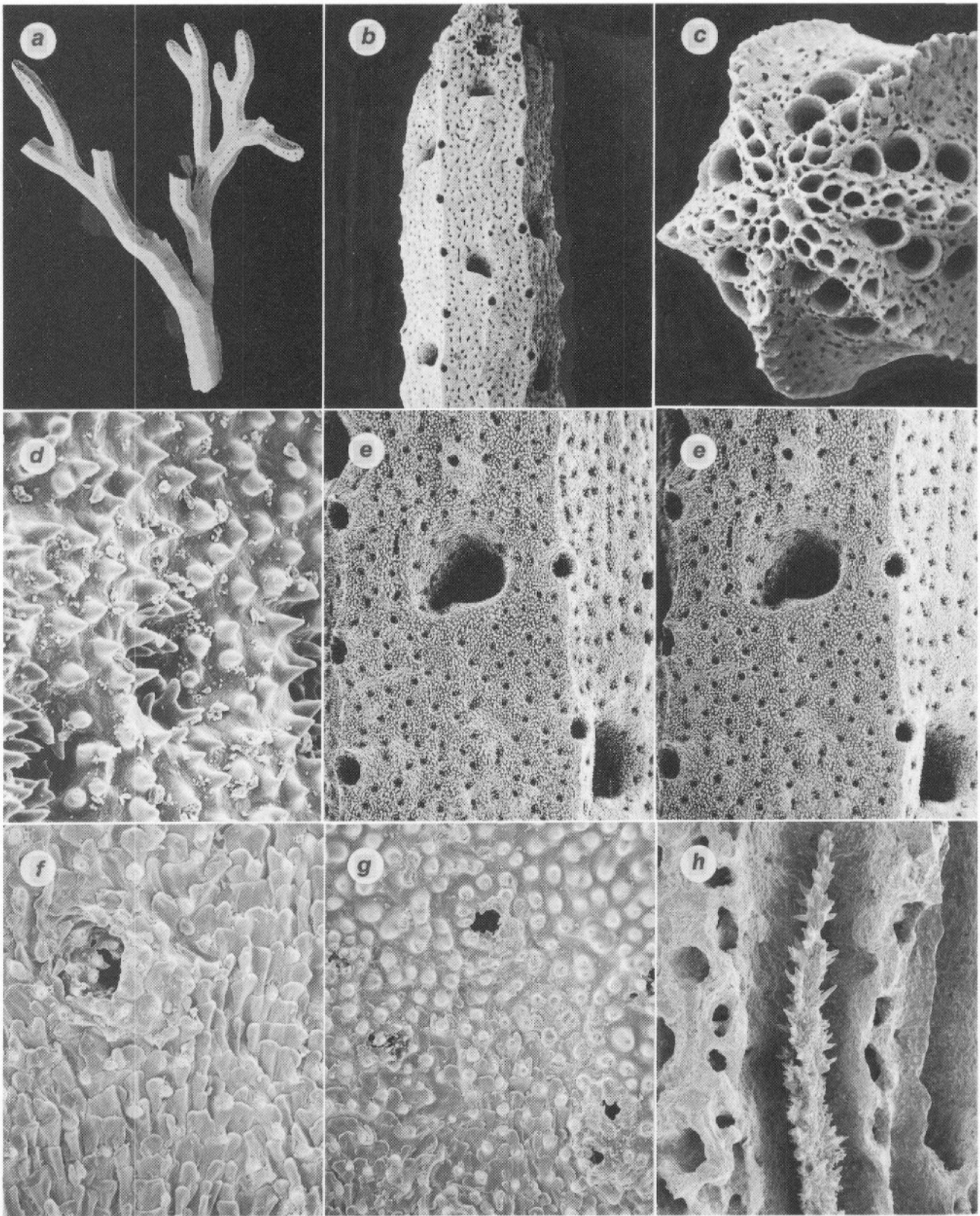


PLATE 7. *Lepidopora polystichopora* (a, c, f-h, E861, USNM 85089; b, d, e, E305, USNM 72348): a, large colony, x 0.8; b, c, branch tips illustrating gastropore and aligned dactylopores, x 13.7, x 23, respectively; d, f, g, coenosteal texture: spinose, imbricate, and transition between the two, respectively, x 505, x 365, x 220, respectively; e, gastropore flanked by two rows of dactylopores, x 36, stereo pair; h, gastrostyle, x 66.

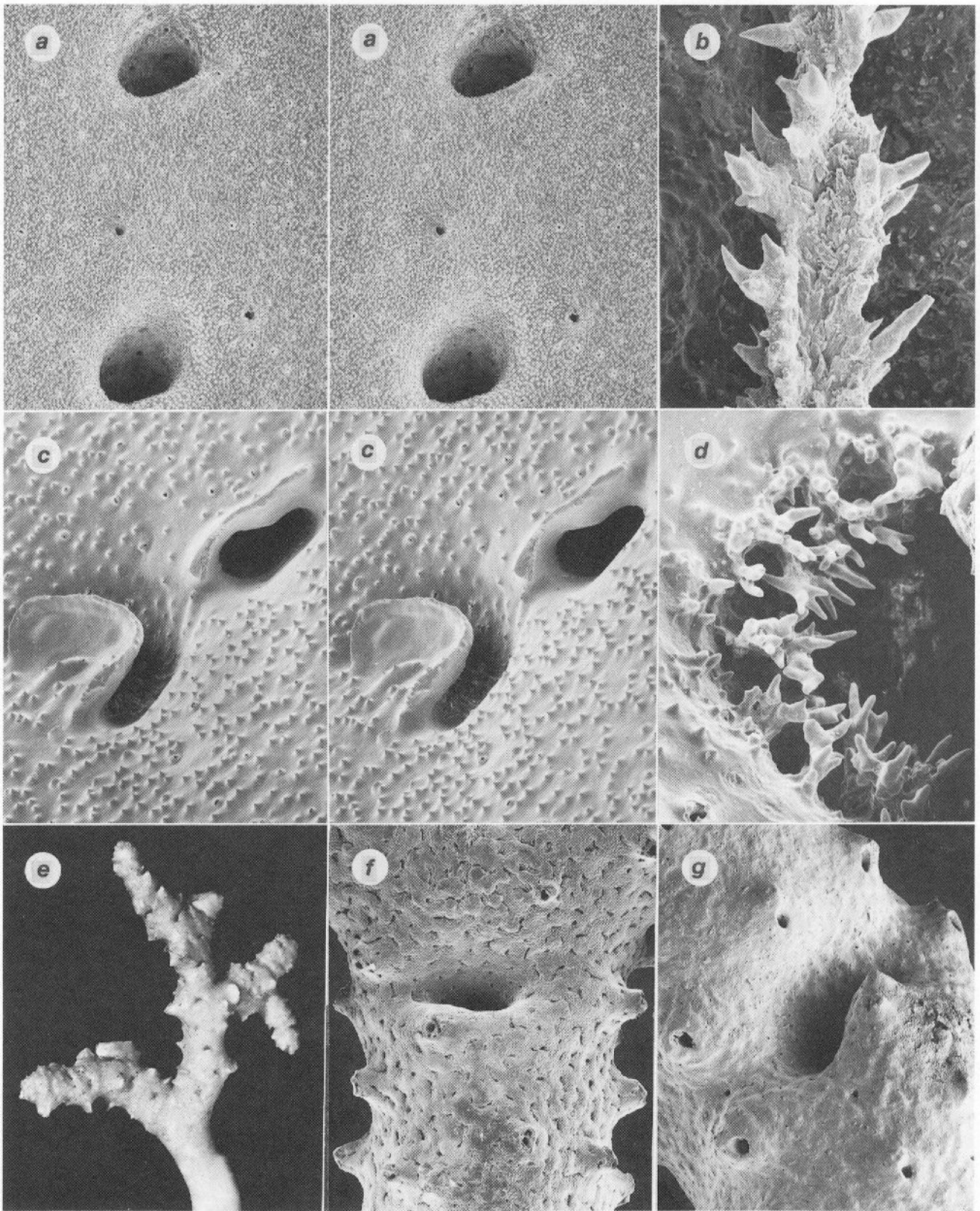


PLATE 8. *Lepidopora polystichopora* (a, b, E861, USNM 85089; c, d, E850, USNM 85090): a, two large gastropores, coenosteal texture, and two small conical male efferent pores, x 34, stereo pair; b, segment of a gastrostyle, x 265; c, lipped gastropore (upper right) and lidded female efferent pore (lower left), x 56, stereo pair; d, cluster of spines covering female efferent pore, x 210. *Adelopora crassilabrum* (e, g, holotype, E846, NZOI; f, E856, USNM 85093): e, holotype colony, x 2.75; f, g, views of swollen gastropore lip, x 45, x 39, respectively.

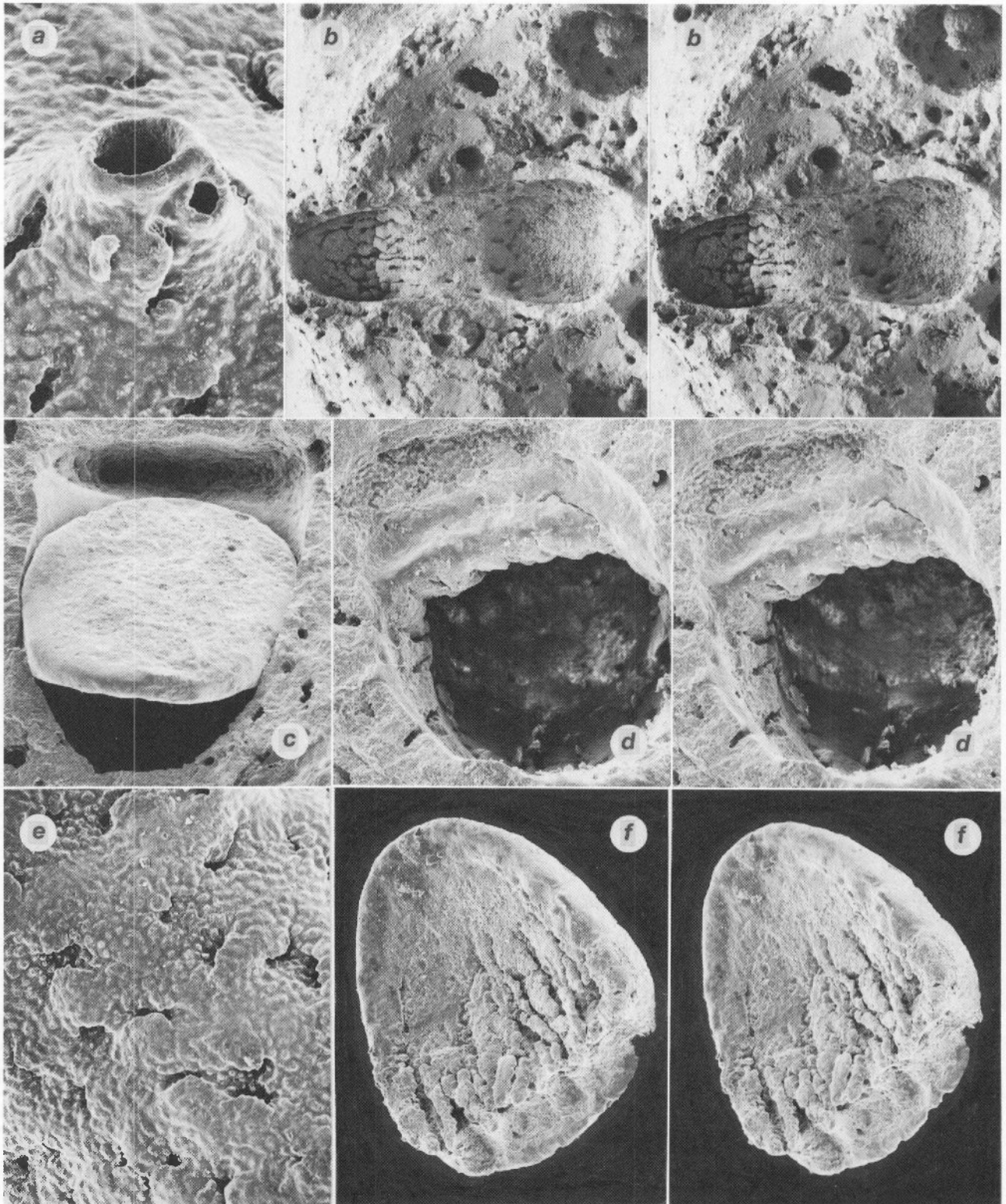


PLATE 9. *Adelopora crassilabrum* (a, c, e, E856, USNM 85093; b, d, f, E846, USNM 85092): a, dactylopore, x 300; b, longitudinal section of an uncleaned gastropore tube with operculum (underside, to left) still intact, x 53, stereo pair; c, intact operculum and coenosteal articulation, x 200; d, open coenosteal articulation (operculum removed), x 140, stereo pair; e, coenosteal texture, x 175; f, lower face of an operculum with articular edge in foreground, x 145, stereo pair.

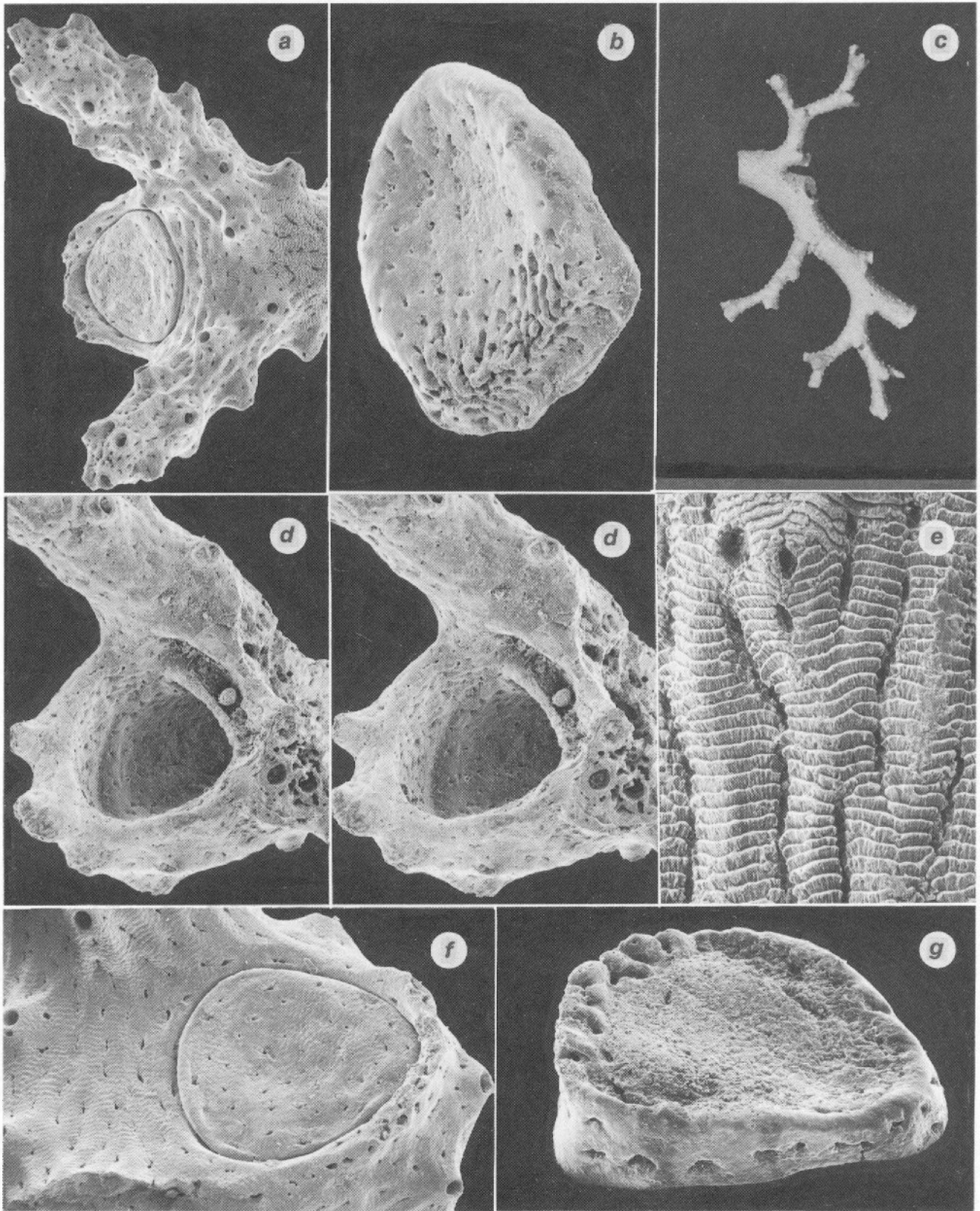


PLATE 10. *Adelopora fragilis* (a, c, e-g, Coriolis D5; b-c, G3, holotype): a, intact operculum at branch axil, x 55; b, g, lower face of operculum, x 100, x 140, respectively; c, holotype colony, x 2.6; d, upper gastropore tube revealing open coenosteal articulation (operculum removed), x 43, stereo pair; e, linear-imbricate coenosteal texture, x 230; f, intact operculum, x 96.

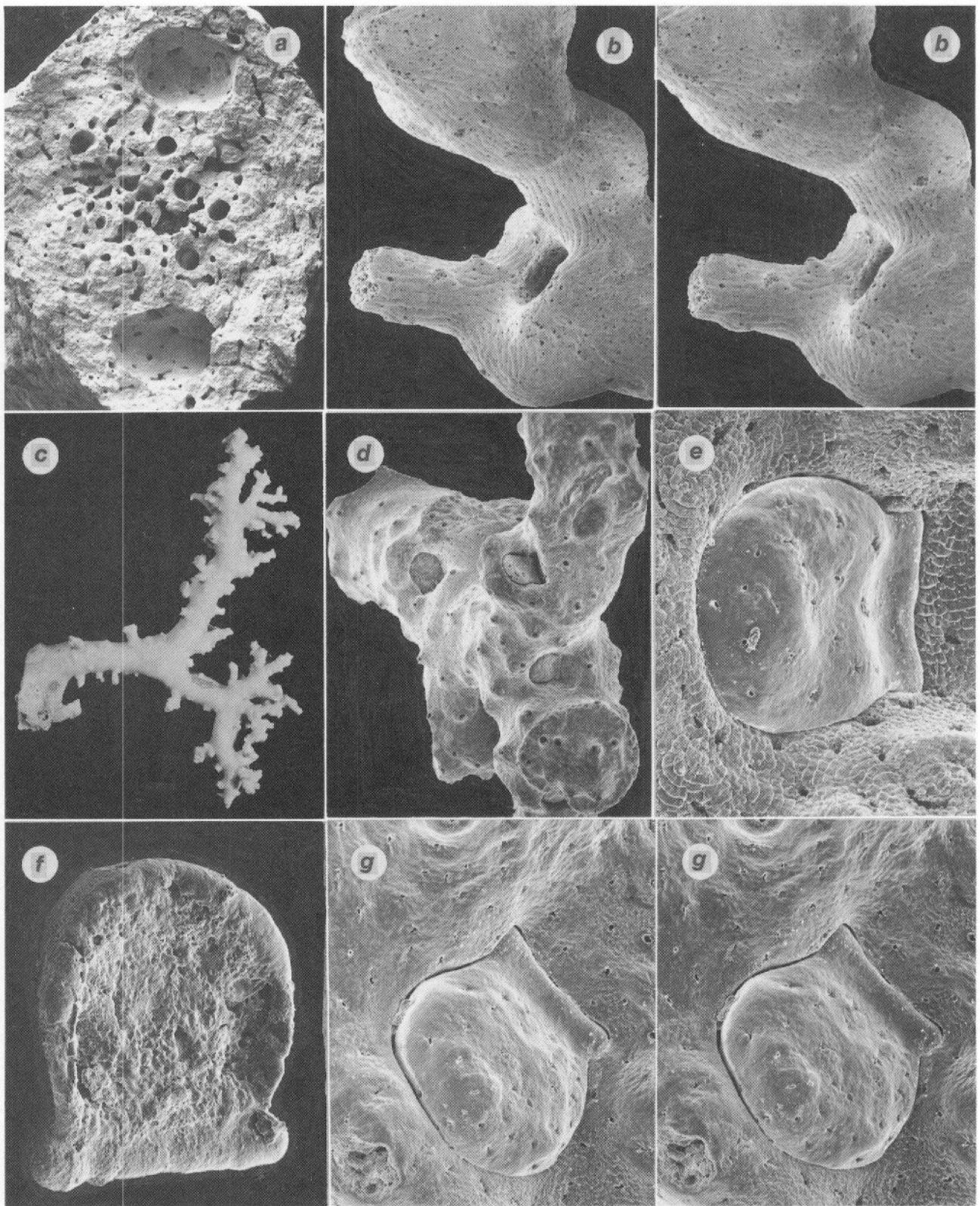


PLATE 11. *Adelopora fragilis* (a, G3, USNM 85094; b, U599, USNM 85095): a, two internal male ampullae, x 54; b, superficial female ampullae, x 30, stereo pair. *Adelopora moseleyi* (c, d, f, P842, USNM 85097; e, g, 1735, USNM 85096): c, holotype colony, x 1.4; d, branch tips and axils containing several opercula, x 22; e, g, upper face of intact opercula, x 150, x 110, respectively (g is a stereo pair); f, lower face of an operculum, x 165.

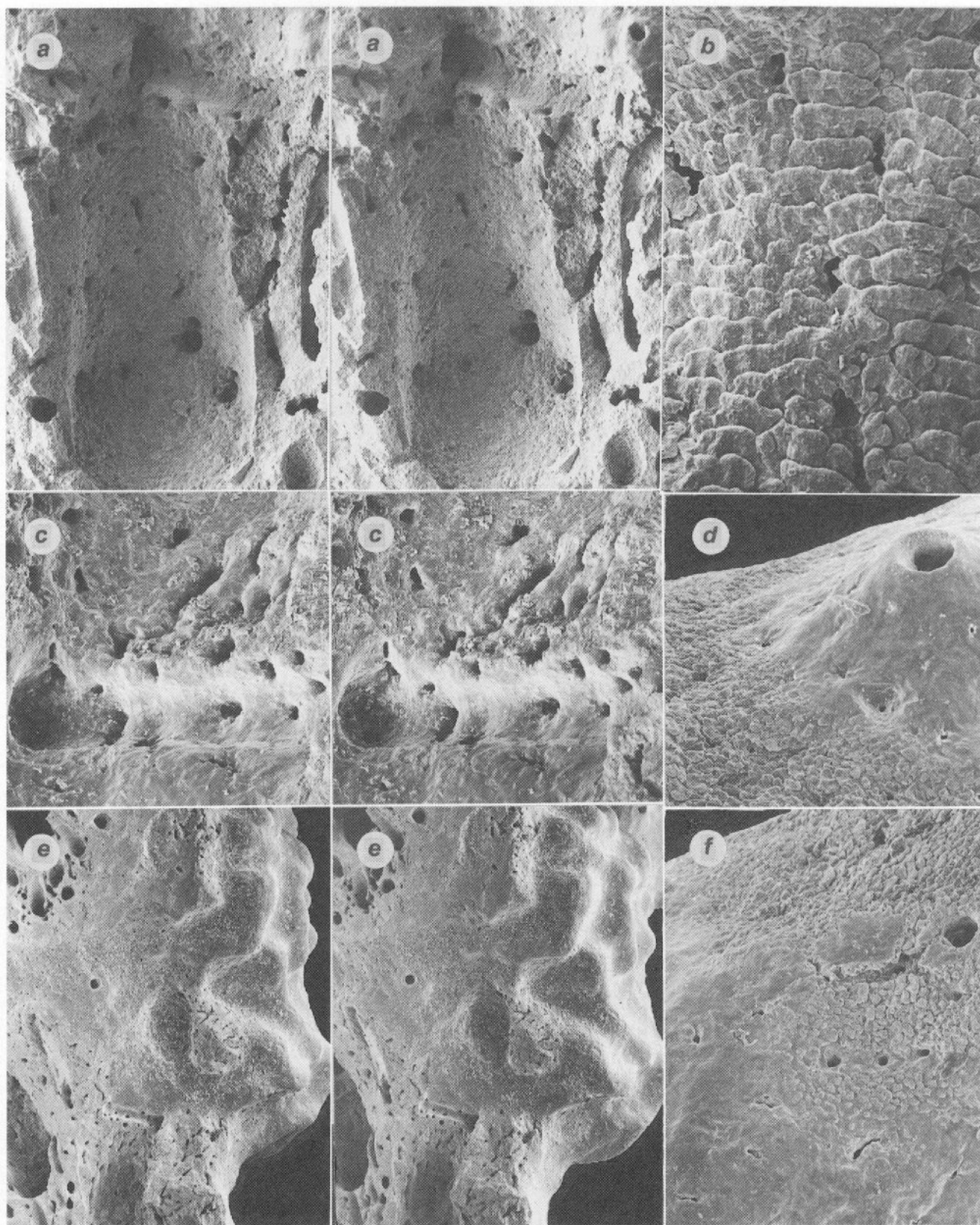


PLATE 12. *Adelopora moseleyi* (a–c, e, P842, USNM 85097; d, f, I735, USNM 85096): a, longitudinal section of a gastropore tube illustrating closed coenosteal articulation at top, x 105, stereo pair; b, linear-imbricate coenosteal texture, x 435; c, closed-type coenosteal articulation, x 220, stereo pair; d, f, transitional coenosteal texture from imbricate to smooth, both x 190; e, female ampulla and efferent pore, x 37, stereo pair.

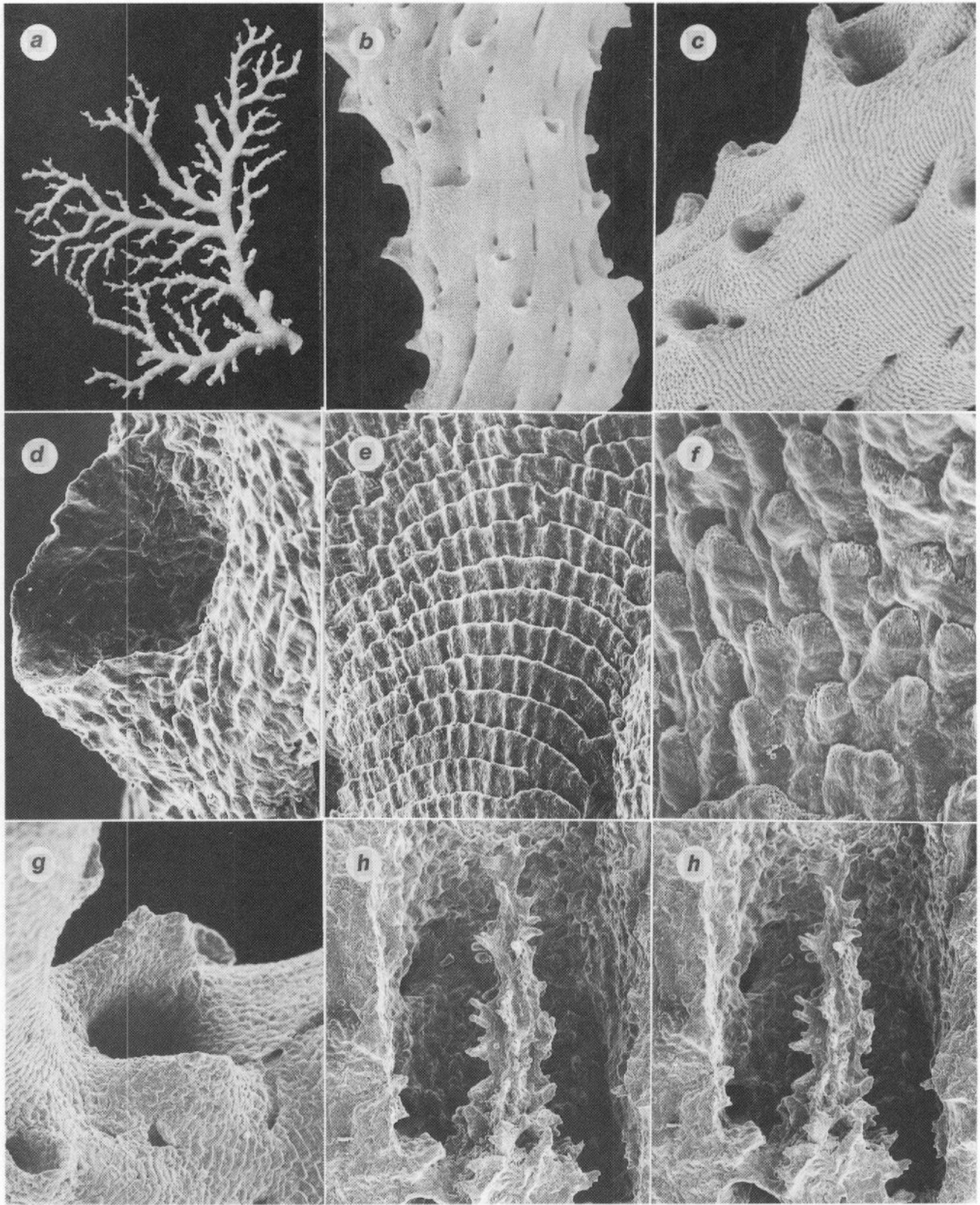


PLATE 13. *Lepidotheca fascicularis* (a-h, *Eltanin* 1423, USNM 60112): a, holotype colony, x 1.65; b, c, branches illustrating lipped gastropores, dactylopore spines, and broad, convex coenosteal strips, x 26, x 58, respectively; d, dactylopore spine, x 250; e, f, imbricate coenosteal texture, x 205, x 550, respectively; g, axial gastropore flanked by two lips, x 80; h, gastrostyle and tabula, x 160, stereo pair.

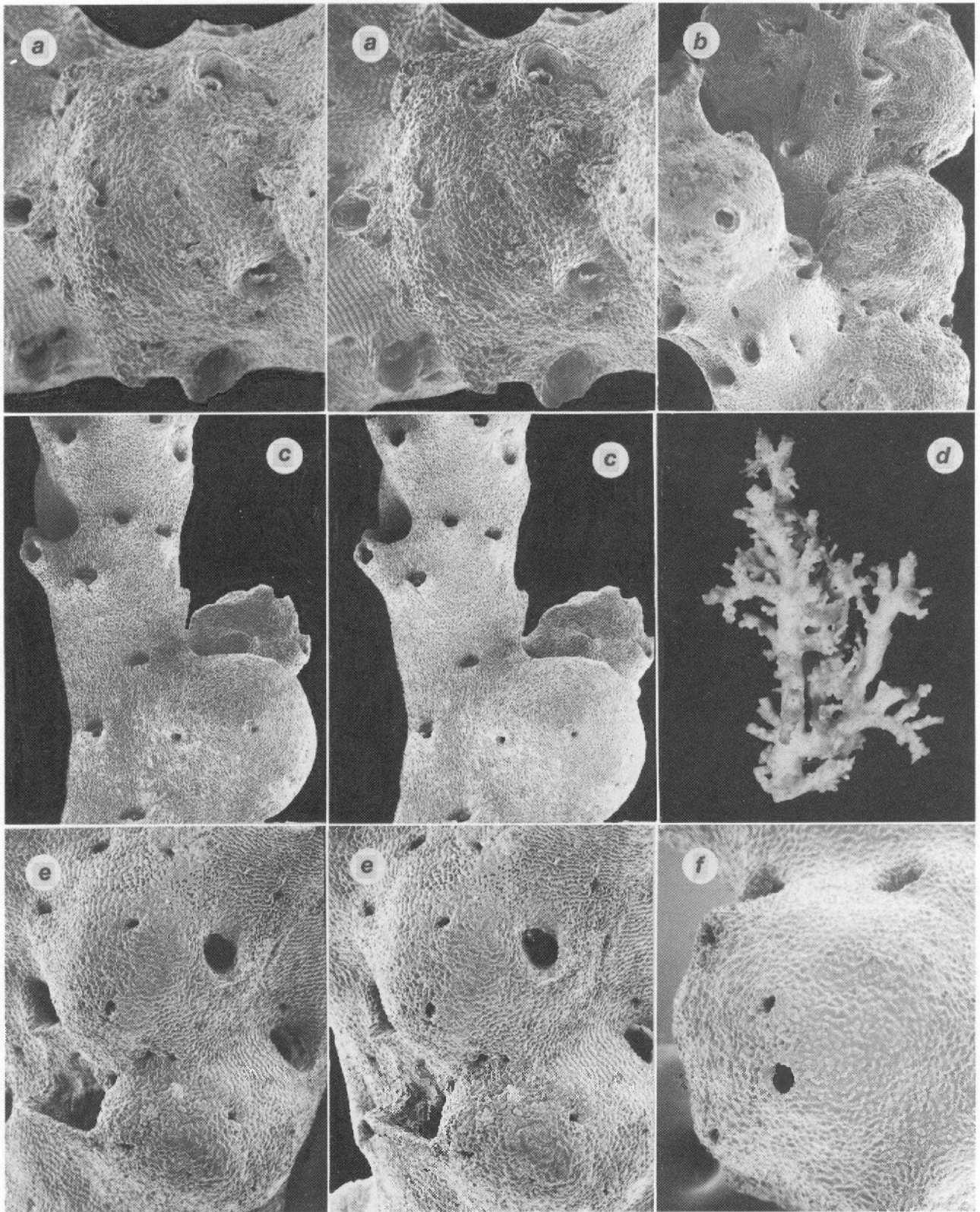


PLATE 14. *Lepidotheca fascicularis* (a, b, *Eltanin* 1423, USNM 60112): a, male ampulla and efferent pore, x 55, stereo pair; b, female ampullae, x 30. *Lepidotheca inconsuta* (c, C731, USNM 85098; d, holotype, *Eltanin* 1422; e, f, *Eltanin* 1422, USNM 60144): c, branch bearing a female ampulla, x 23, stereo pair; d, holotype colony, x 1.15; e, male ampullae, x 45, stereo pair; f, male ampulla with several apical efferent pores, x 66.

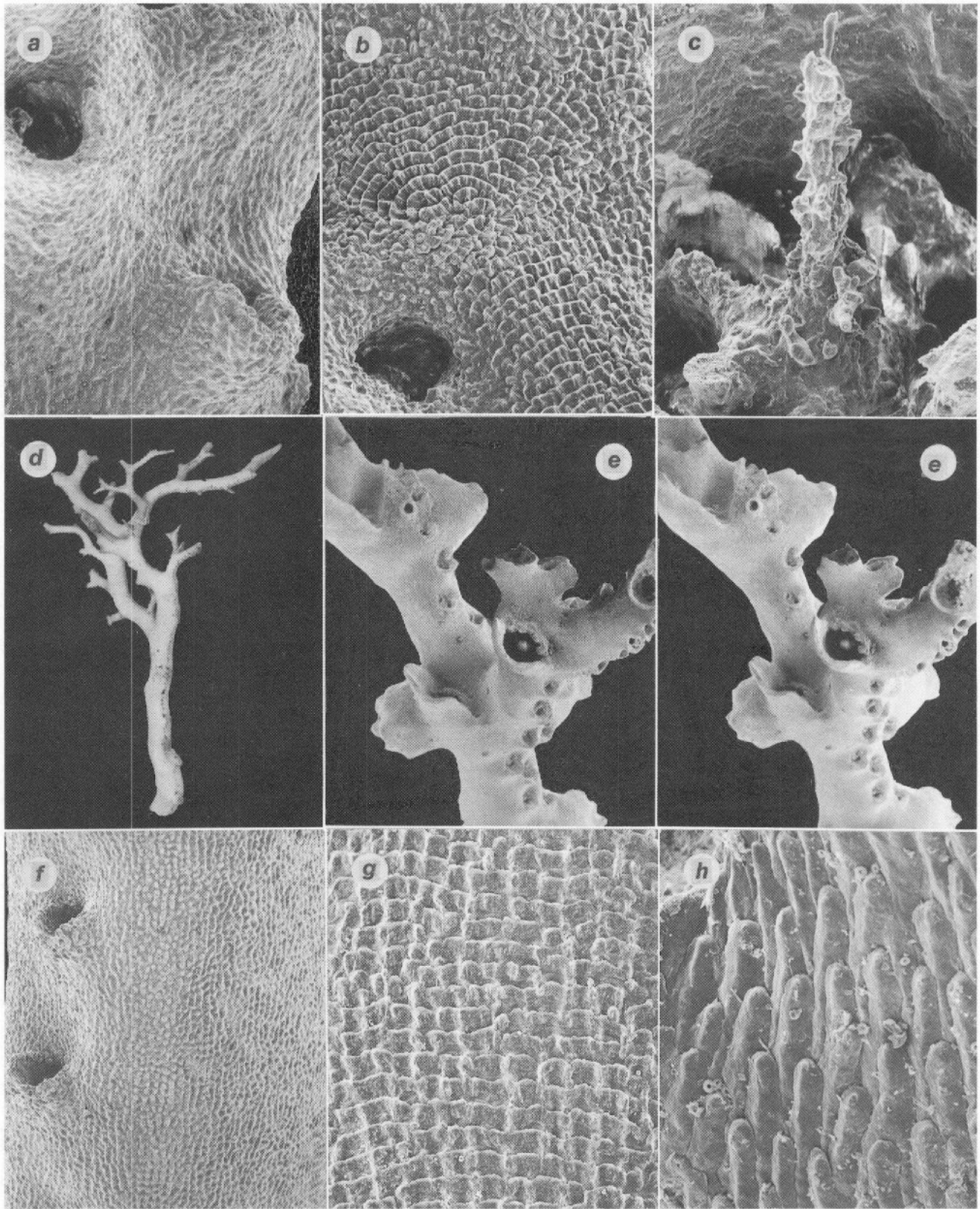


PLATE 15. *Lepidotheca inconsuta* (a, b, *Eltanin* 1422, USNM 60144; c, C731, USNM 85098): a, two dactylopore spines, x 94; b, linear-imbricate coenosteal texture, x 112; c, rudimentary gastrostyle, x 225. *Lepidotheca chauliostylus* (d, f, holotype, E862; e, h, G3, USNM 85101; g, E856, USNM 85100): d, holotype colony, x 2.1; e, branches illustrating hooded gastropores, aligned dactylopore spines, and male ampullae, x 23, stereo pair; f, aligned dactylopore spines, x 78; g, h, linear-imbricate coenosteal texture, x 195, x 520, respectively.

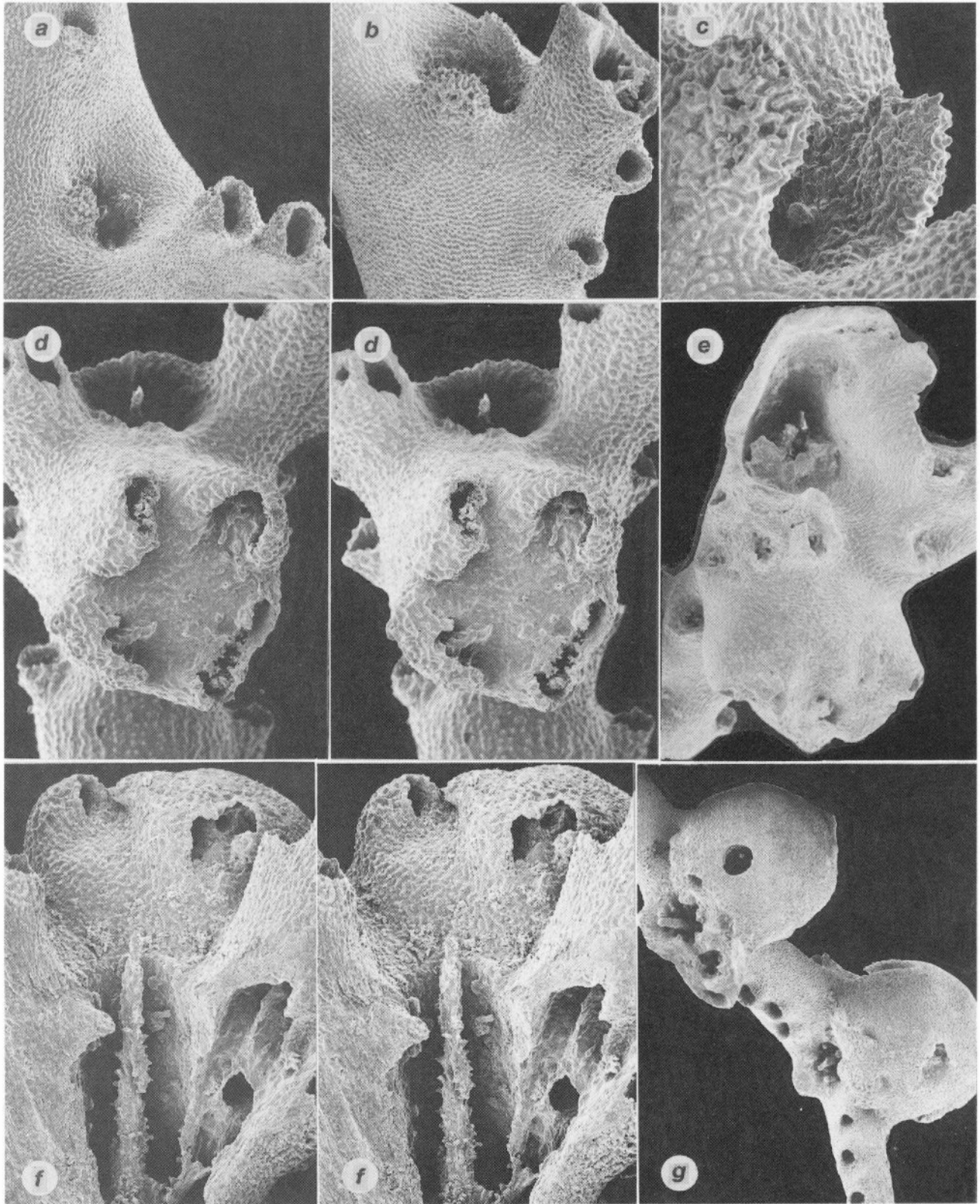


PLATE 16. *Lepidotheca chauliostylus* (a–c, holotype, E862; d, E856, USNM 85100; e–g, G3, USNM 85101): a–c, aligned dactylopore spines and axial gastropore flanked by two lips, $\times 60$, $\times 67$, $\times 160$, respectively; d, apical view of male ampulla adjacent to a gastropore, $\times 72$, stereo pair; e, hooded gastropore and female ampulla, $\times 45$; f, gastrostyle, ring palisade, and lateral view of a male ampulla with two efferent pores, $\times 90$, stereo pair; g, female ampullae, $\times 36$.

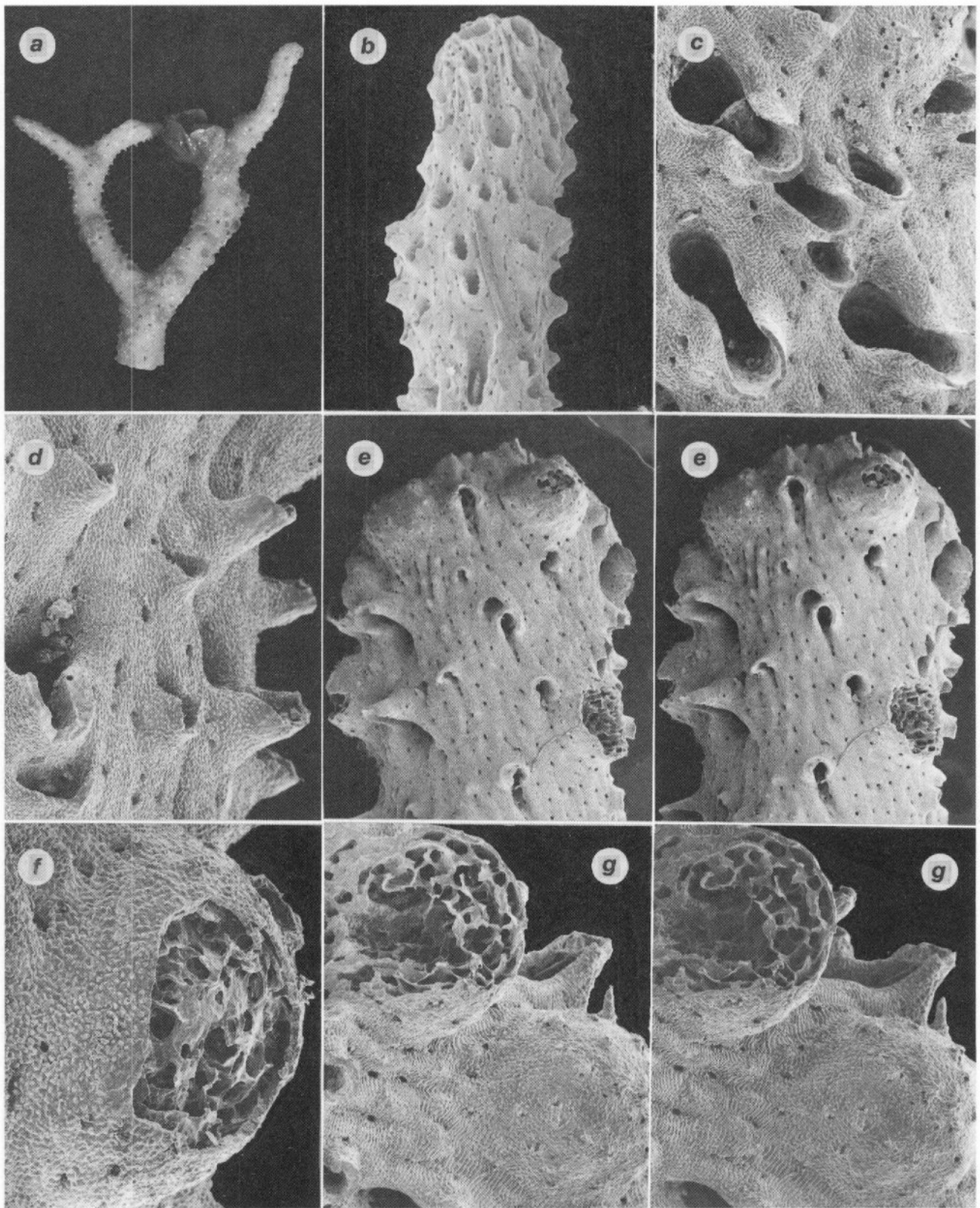


PLATE 17. *Lepidothea cervicornis* (a, b, syntype, ZMC; c-g, E291, USNM 85102): a, branch of syntype, x 2.4; b, branch tip illustrating dactylopore spines, x 17; c, gastropores with closely adjacent dactylopore spines, x 54; d, dactylopore spines, x 56; e, branch tip with dactylopore spines and ampullae, x 22, stereo pair; f, g, partially damaged, spongy ampullae, x 95, x 53, respectively (g is a stereo pair).

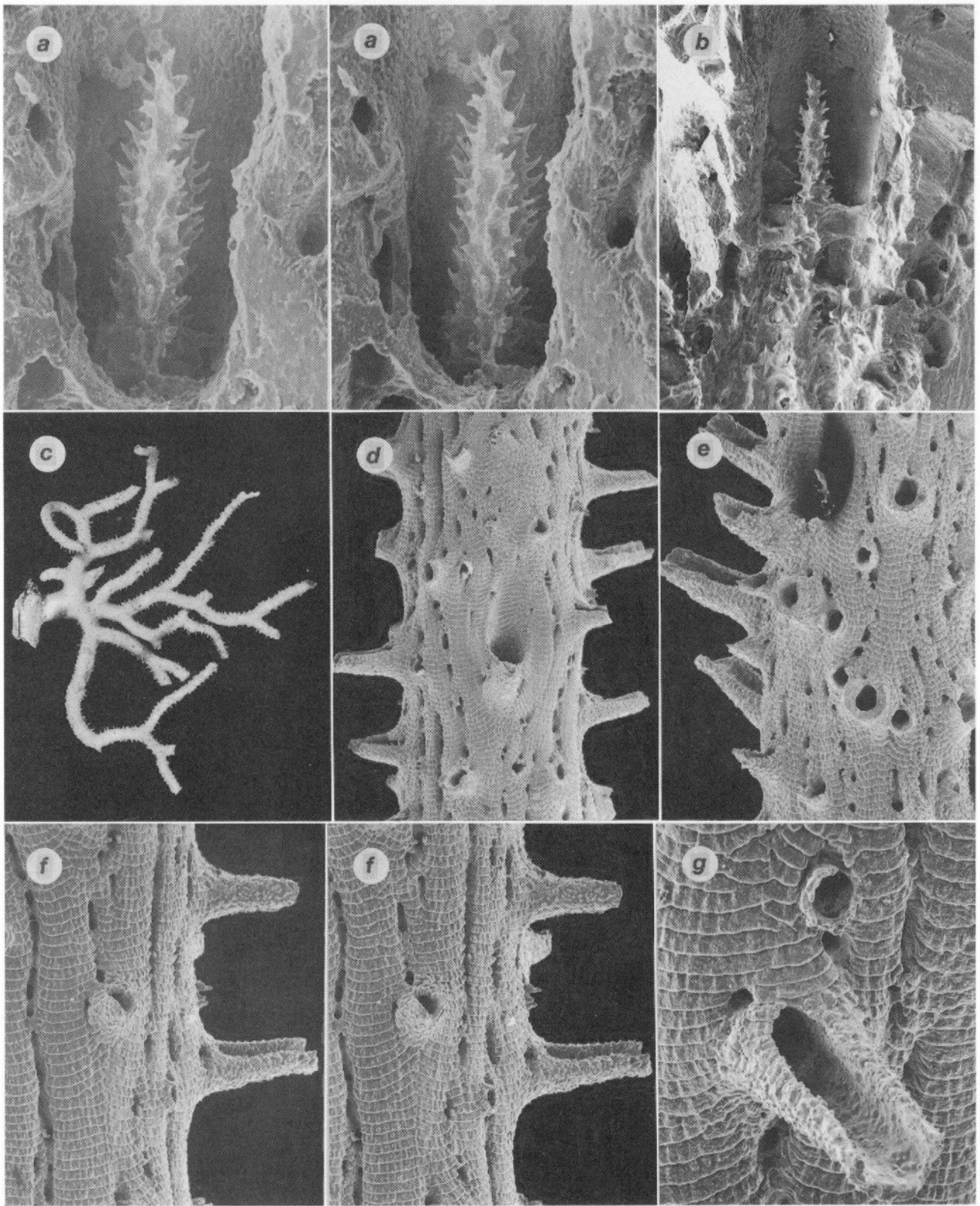


PLATE 18. *Lepidotheca cervicornis* (a, syntype, ZMC; b, E291, USNM 85102): a, b, gastrostyle, x 165, x 77, respectively (a is a stereo pair). *Lepidotheca altispina* (c–g, E856): c, holotype colony, NZOI, x 1.6; d–g, branches illustrating tall dactylopor spines and reversed polarity of linear-imbricate coenostele texture, x 36, x 51, x 65, x 140, respectively (f is a stereo pair), USNM 85103.

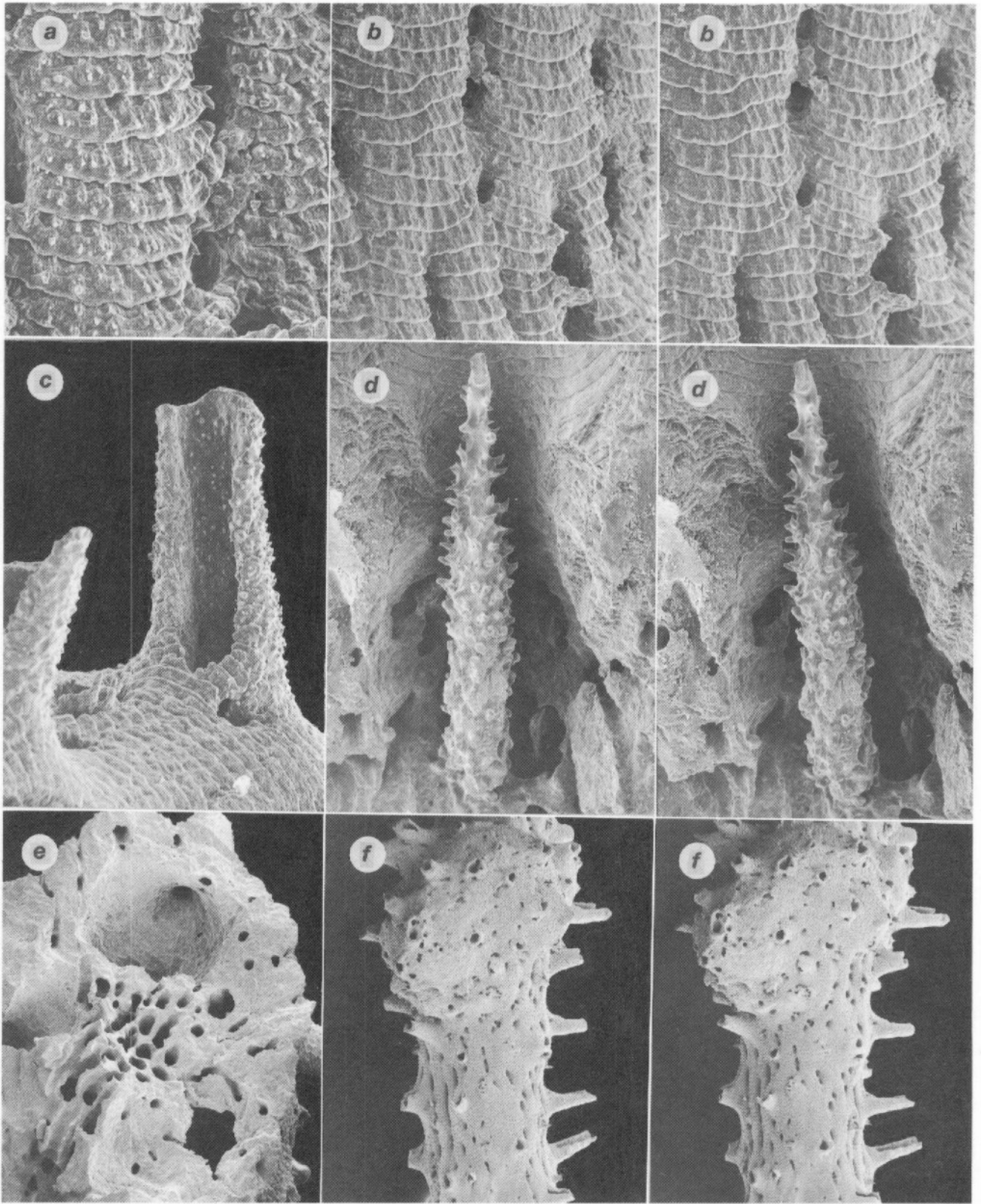


PLATE 19. *Lepidotheca altispina* (a-f, E856, USNM 85103): a, b, linear-imbricate coenosteal texture, x 280, x 155, respectively (b is a stereo pair); c, dactylopore spine, x 150; d, gastrostyle, x 125, stereo pair; e, cross section of branch illustrating male ampulla and efferent pore, x 58; f, clustered female ampullae, x 25, stereo pair.

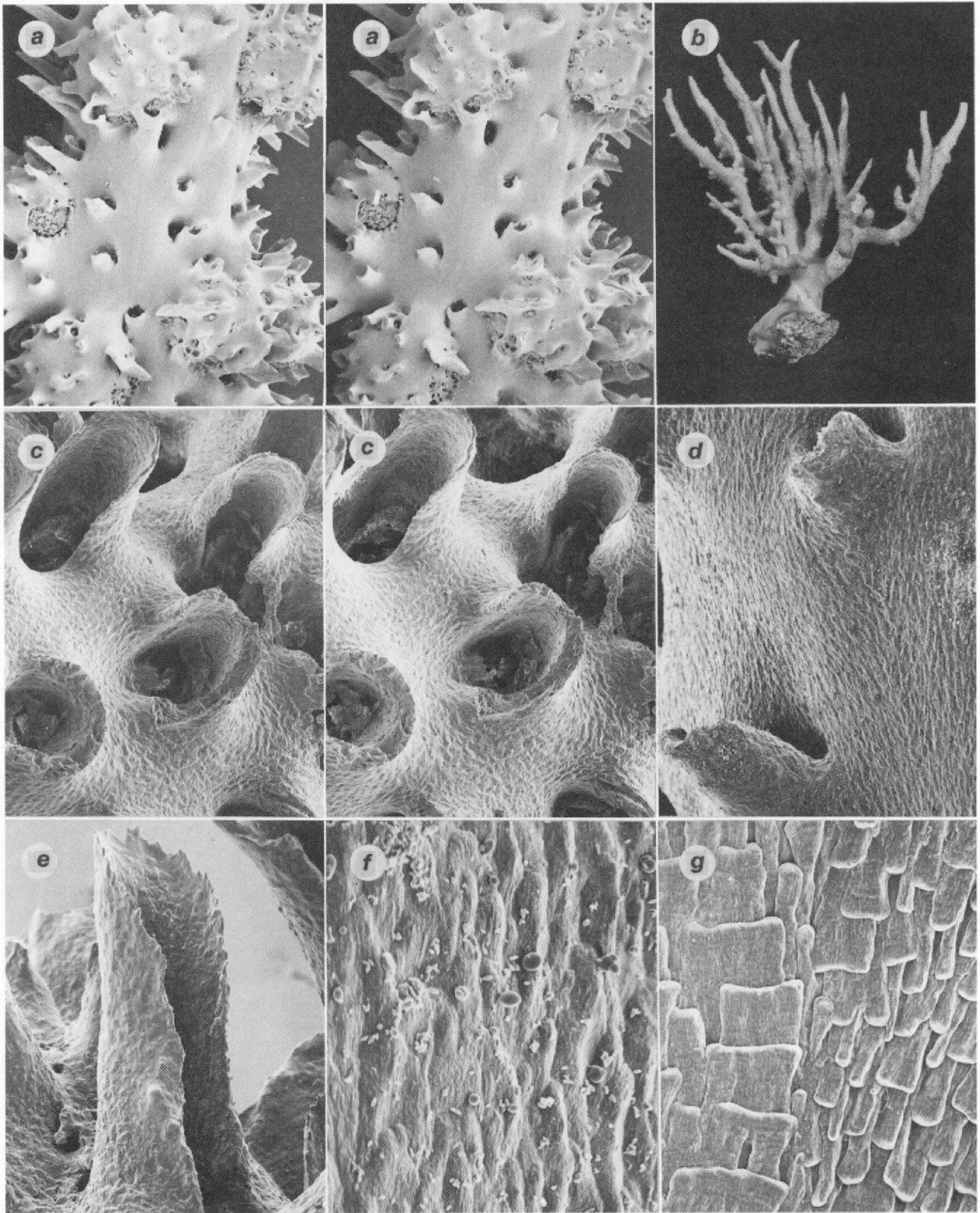


PLATE 20. *Lepidotheca robusta* (a-g, holotype, I96): a, dactylopore spines and several mature female ampullae, x 14, stereo pair; b, holotype colony, x 0.85; c-e, dactylopore spines, x 66, x 78, x 100, respectively (c is a stereo pair); f, g, imbricate coenosteal texture illustrating alternating polarity, x 650, x 290, respectively.

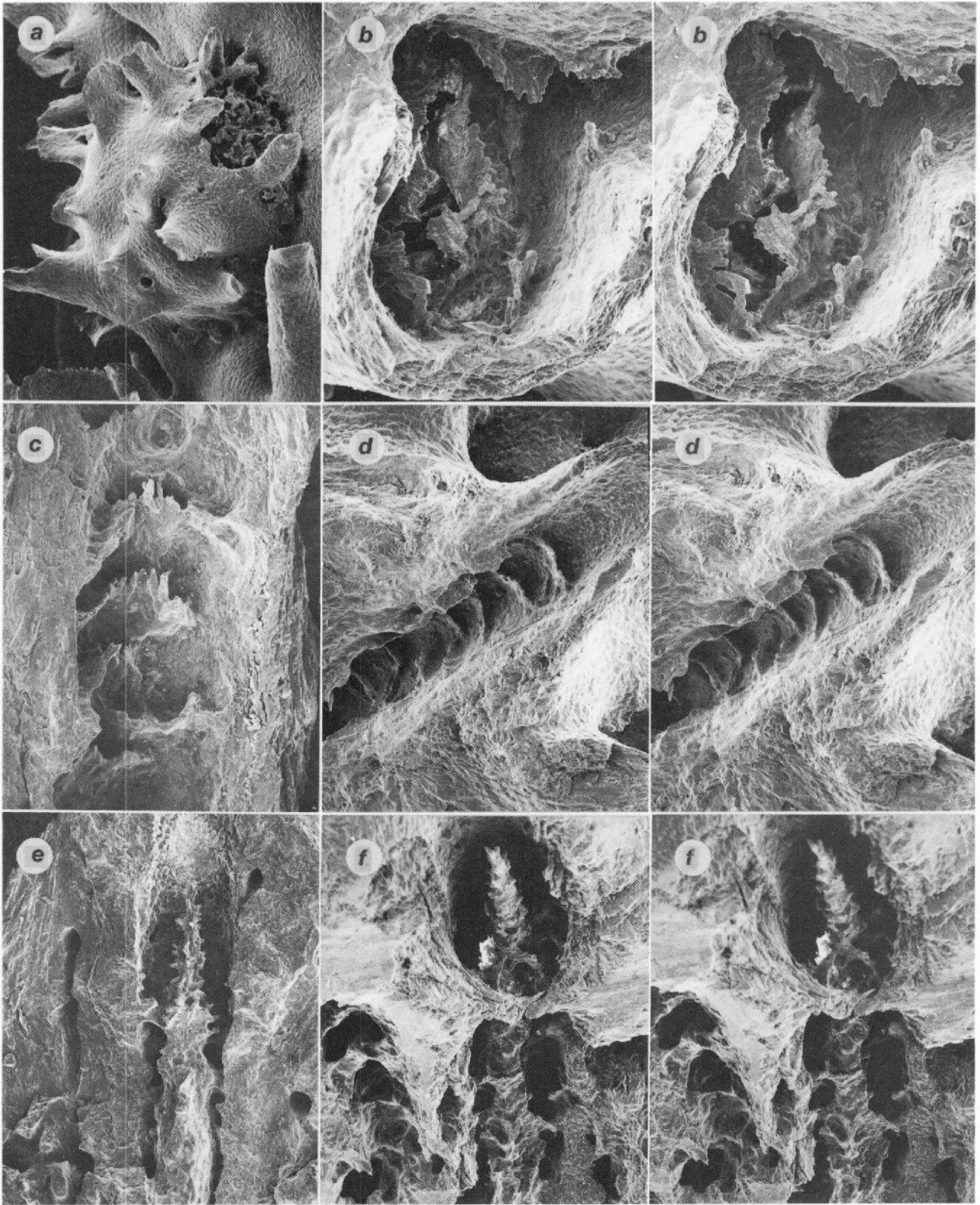


PLATE 21. *Lepidotheca robusta* (a-f, holotype, I96): a, female ampulla and efferent pore, x 40; b, apical view of dactylopore pseudotabulae in a sheared dactylopore spine, x 220, stereo pair; c, d, dactylopore pseudotabulae in longitudinal section of a dactylopore tube, x 205, x 94, respectively (d is a stereo pair); e, f, gastrostyle and tabula, x 65, x 80, respectively (f is a stereo pair).

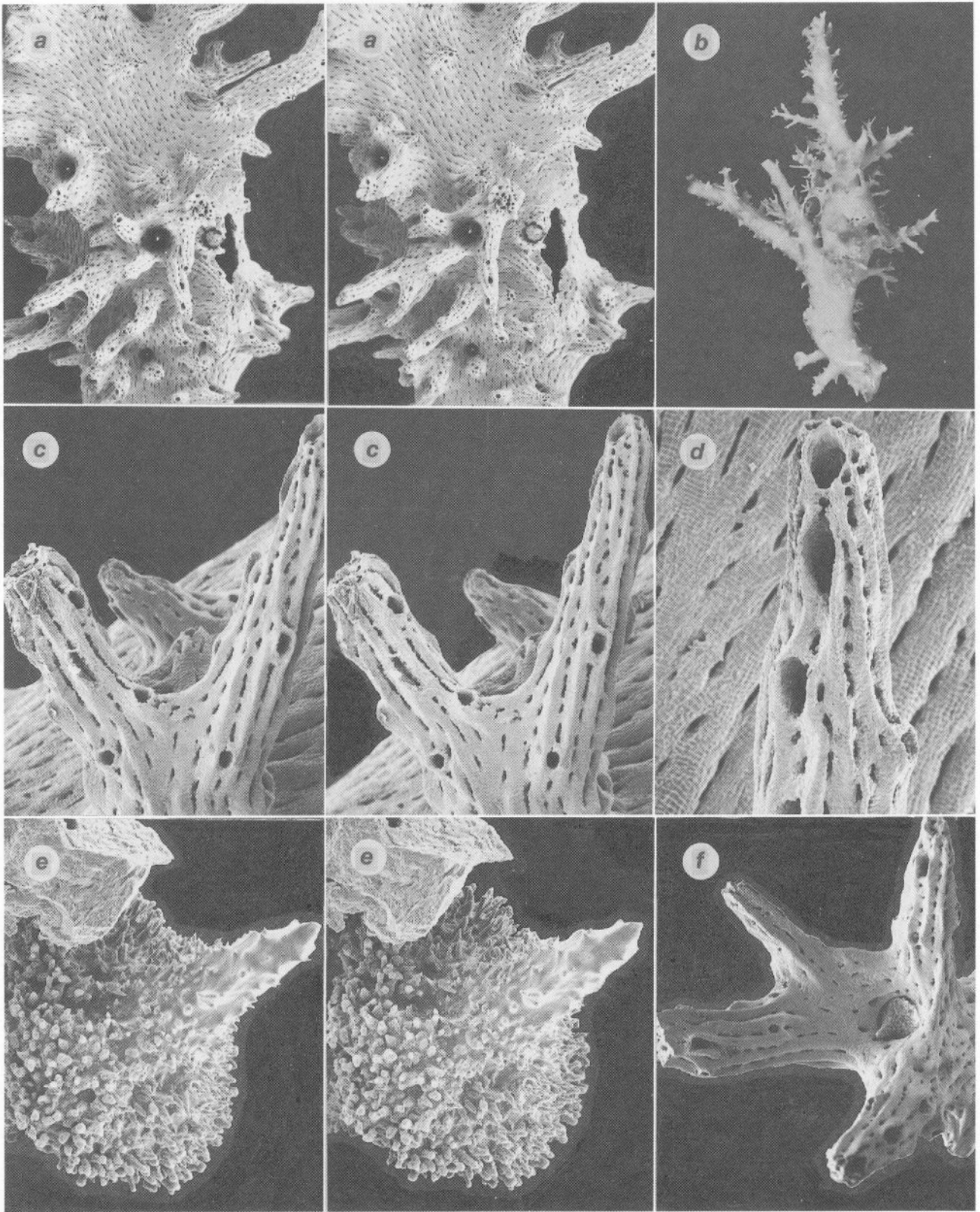


PLATE 22. *Stephanohelia praecipua* (a-f, E861, 85108): a, colony segment illustrating branching pattern, x 15, stereo pair; b, holotype colony, x 2.0, NZOI; c, d, terminal branchlets illustrating aligned dactylopores, x 61, x 112, respectively (c is a stereo pair); e, gastrostyle, x 290, stereo pair; f, characteristic branching pattern with an axial gastropore, x 48.

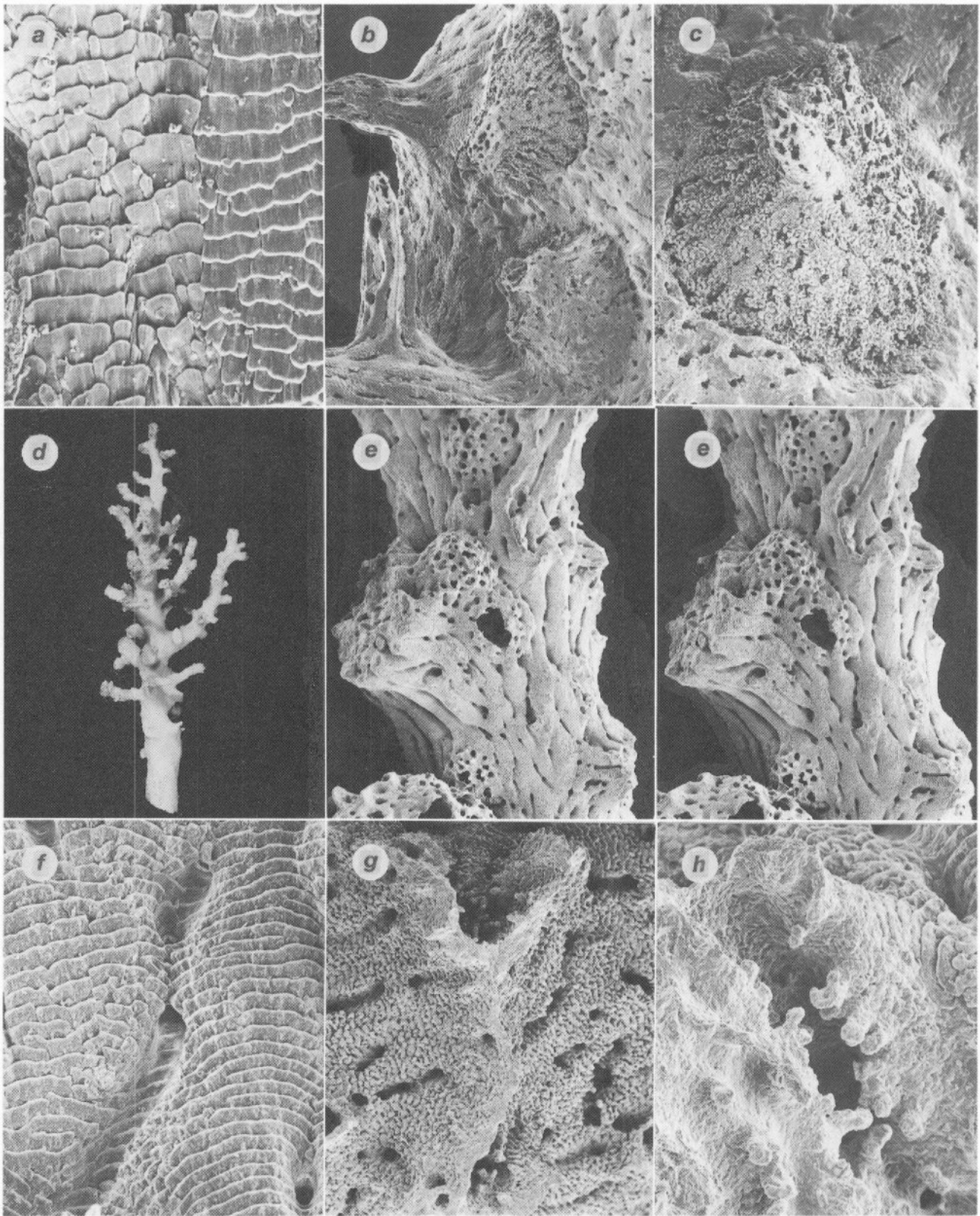


PLATE 23. *Stephanohelia praecipua* (a, E861, USNM 85108; b, c, E859, USNM 85107): a, alternating coenosteal polarity, x 420; b, c, male (?) ampullae, x 50, x 95, respectively. *Inferiolabiata labiata* (d-f, h, F127, NZOI; g, *Eltanin* 2143, USNM 60007): d, colony, x 1.3; e, branch segment illustrating coenosteal texture and spongy male (?) ampullae, x 17, stereo pair; f, linear-imbricate coenosteal texture with broad coenosteal slit, x 128; g, h, dactylopore spine with lateral dactylostyles, x 55, x 135, respectively.

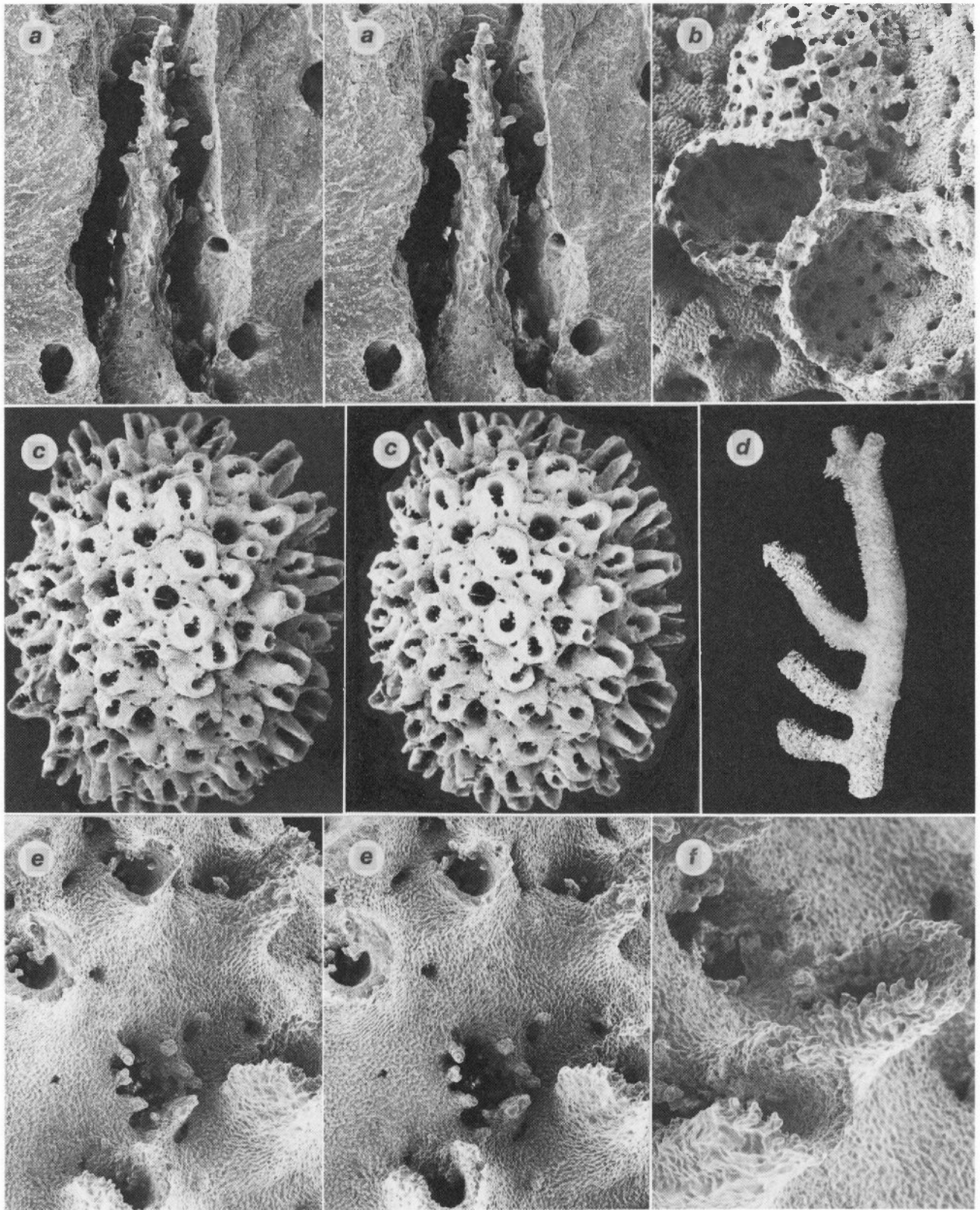


PLATE 24. *Inferiolabiata labiata* (a, F127, USNM 85109; b, *Eltanin* 2143, USNM 60007): a, gastrostyle and diffuse ring palisade, x 90, stereo pair; b, clustered ampullae, x 37. *Inferiolabiata spinosa* (c, e, f, E861, USNM 85112; d, holotype, E861): c, apical view of branch tip illustrating numerous lateral dactylostyles, x 21, stereo pair; d, holotype colony, x 1.4; e, branch coenosteum with one gastropore and several dactylopore spines, x 58, stereo pair; f, dactylopore spines with serrate edges, x 107.

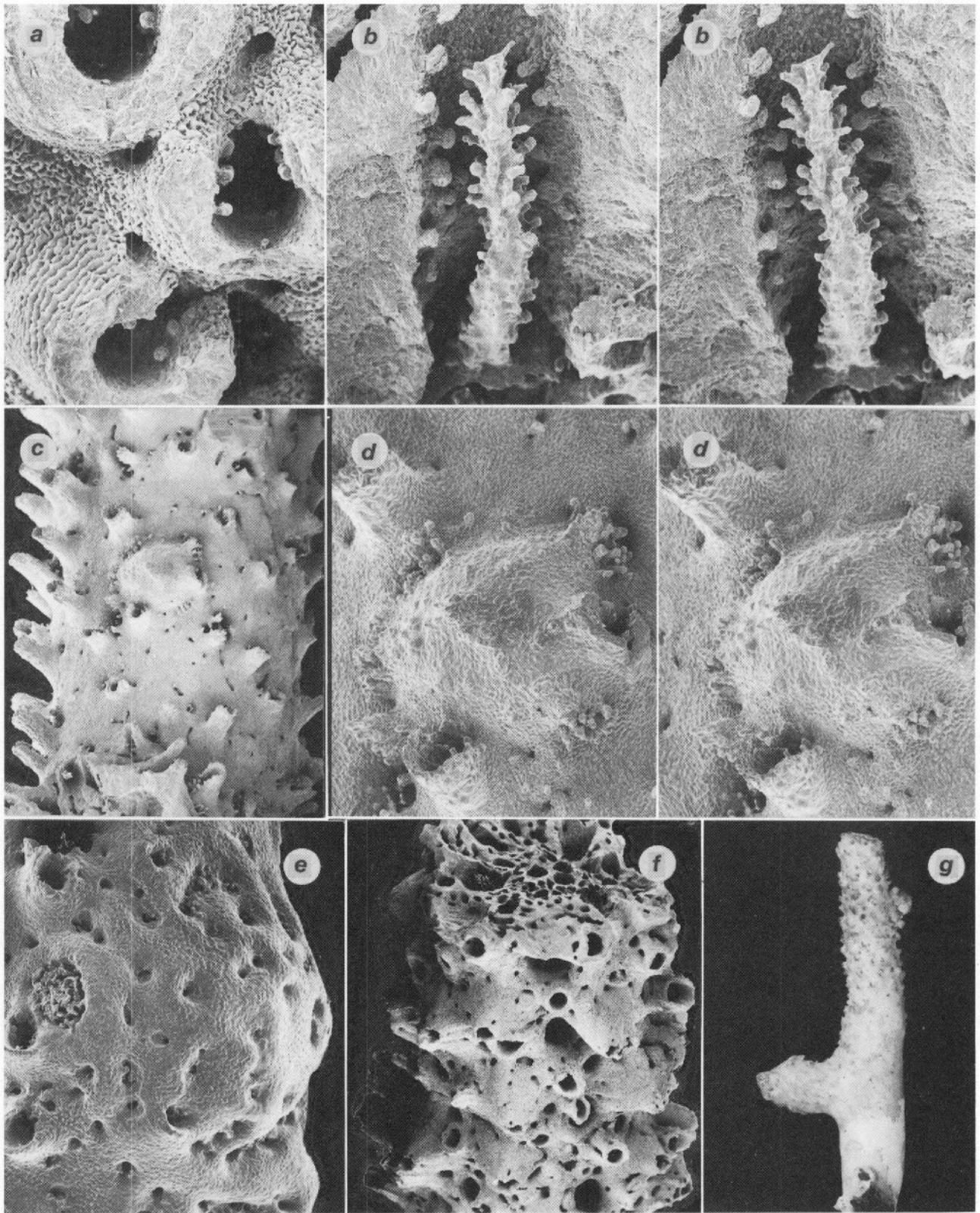


PLATE 25. *Inferiolabiata spinosa* (a–d, E861, USNM 85112; e, I372, NZOI): a, apical view of dactylopore spines illustrating lateral dactylostyles, x 125; b, gastrostyle and diffuse ring palisade, x 135, stereo pair; c, branch segment with tall dactylopore spines and one male ampulla, x 17; d, male ampulla and efferent pore, x 55, stereo pair; e, female ampulla and efferent pore, x 39. *Inferiolabiata lowei* (f, E305, NZOI; g, P541, NZOI): f, branch segment illustrating dactylopore spines, x 17; g, colony, x 3.0.

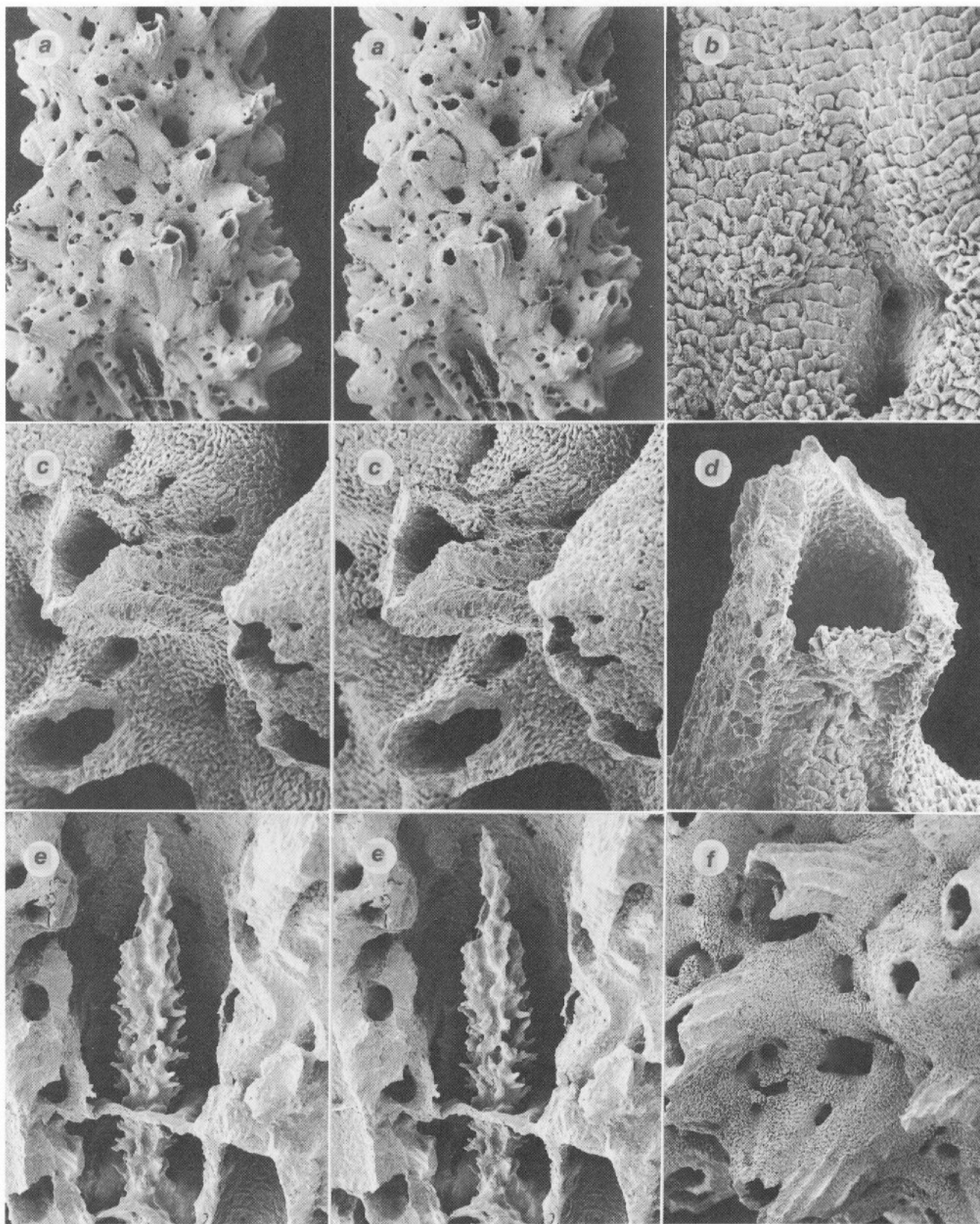


PLATE 26. *Inferiolabiata lowei* (a-f, E305, NZOI): a, branch segment illustrating gastrostyle, ridged dactylopore spines, mammiform male ampullae, and gastropores, x 15, stereo pair; b, imbricate coenosteal texture, x 150; c, d, sheared dactylopore spines illustrating adcauline platelet, x 83, x 130, respectively (c is a stereo pair); e, gastrostyle stabilised by two tabulae, x 70, stereo pair; f, ridged dactylopore spines, x 39.

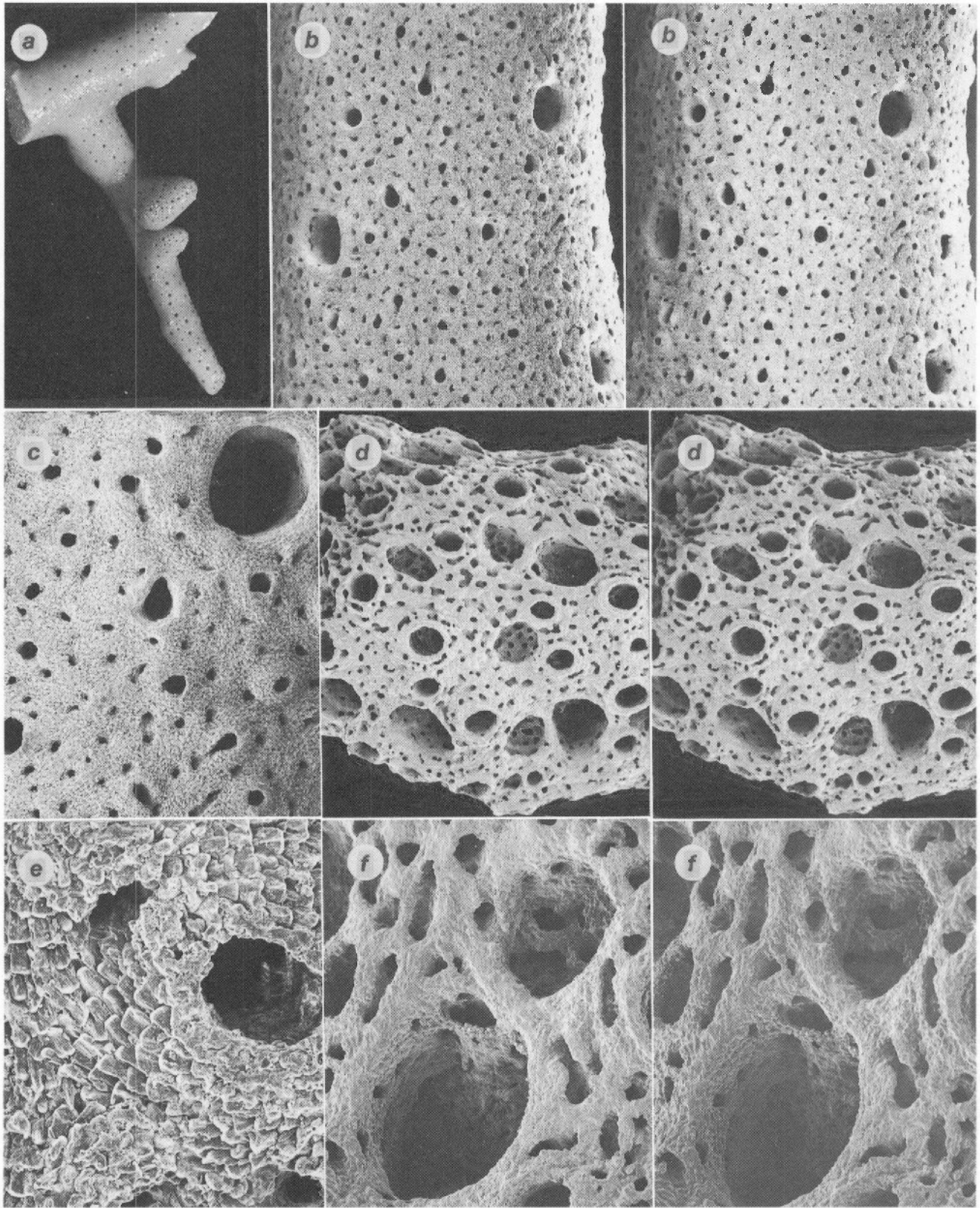


PLATE 27. *Sporadopora mortenseni* (a, syntype, ZMC; b, c, e, E305, USNM 85113; d, f, P472, NZOI): a, syntype colony, $\times 2.1$; b, c, branch coenosteum illustrating large, circular gastropores, smaller elliptical dactylopores, and very small coenosteal pores, $\times 20$, $\times 47$, respectively (b is a stereo pair); d, branch segment illustrating gastropores, dactylopores, and several shallow pits overlying male ampullae, $\times 26$, stereo pair; e, imbricate coenosteal texture, $\times 240$; f, enlargement of spongy pit overlying internal male ampulla and its efferent pore opening into adjacent gastropore tube, $\times 82$, stereo pair.

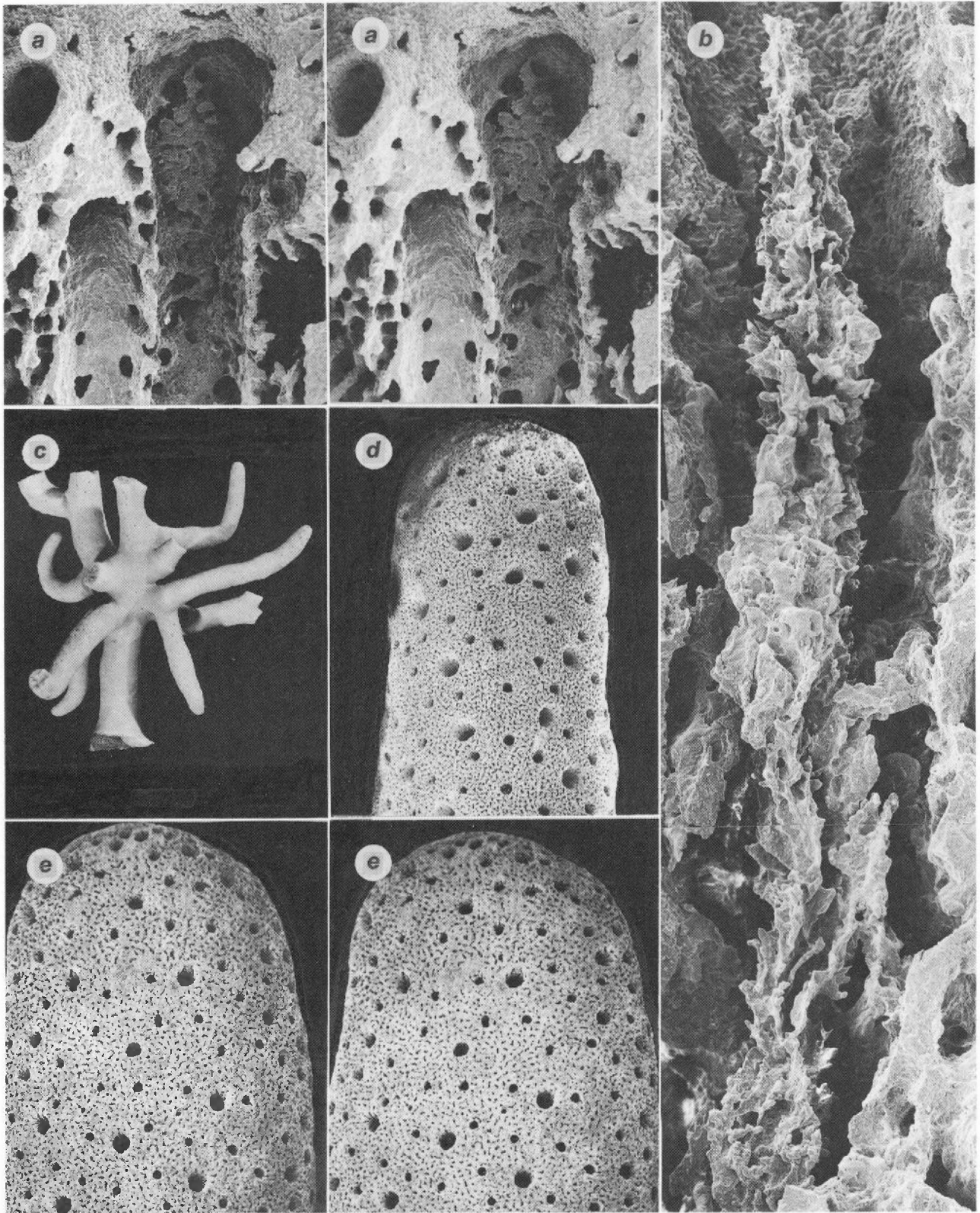


PLATE 28. *Splanthopora mortenseni* (a, P472, NZOI; b, E305, USNM 85113): a, longitudinal section of a gastropore tube illustrating presumed male efferent pore, x 65, stereo pair; b, elongate gastrostyle, x 160. *Splanthopora micropora* (c, holotype, D39; d, e, D39, USNM 85114): c, holotype colony, x 1.2; d, e, blunt branch tips illustrating gastropores (larger pores) and dactylopores, x 12.8, x 15.4, respectively (e is a stereo pair).

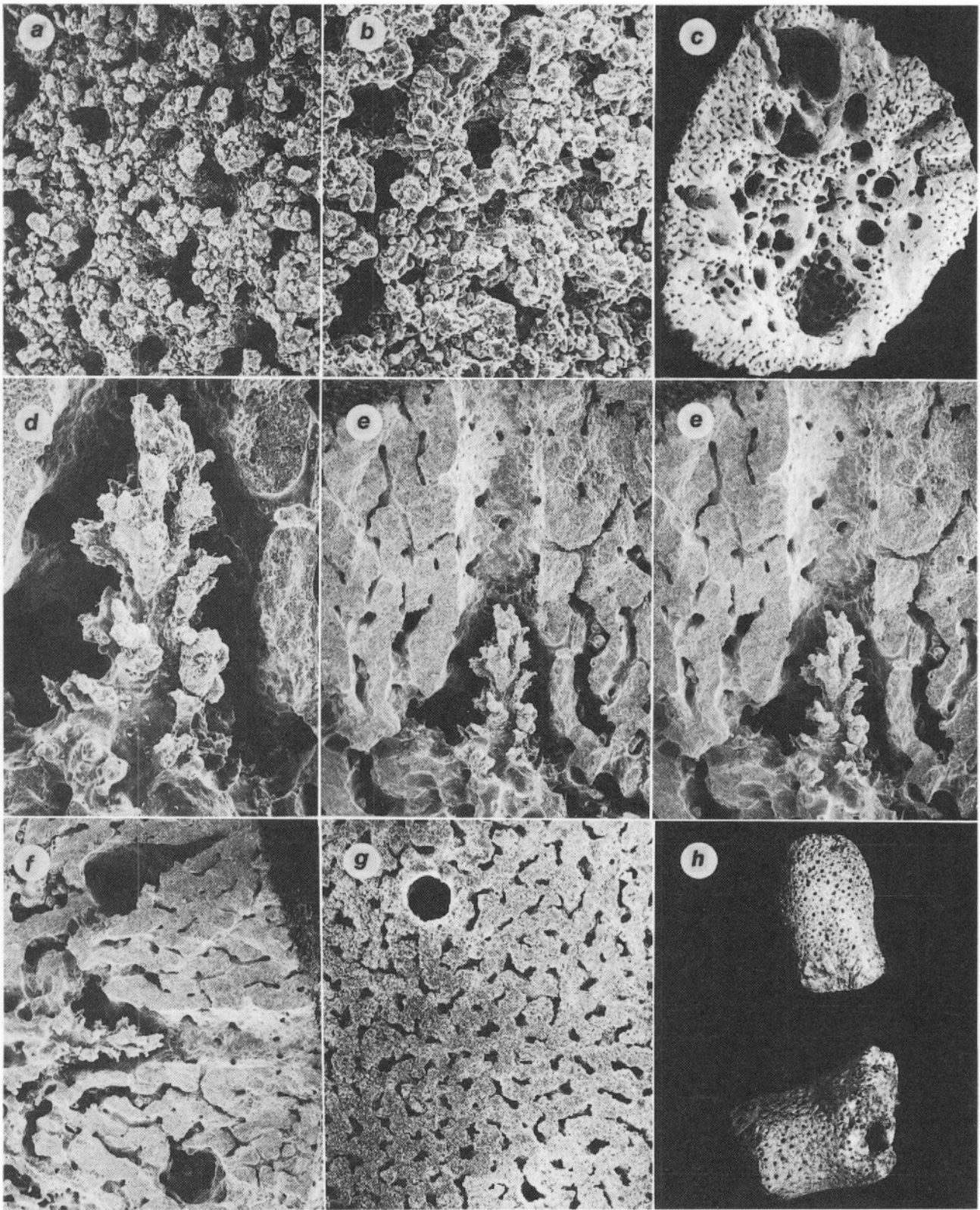


PLATE 29. *Sporadopora micropora* (a–g, D39, USNM 85114): a, b, g, coenosteal texture, $\times 160$, $\times 285$, $\times 61$, respectively; c, branch cross section illustrating internal female ampullae and porous branch core, $\times 2.05$; d, e, gastrostyle, $\times 150$, $\times 67$, respectively (e is a stereo pair); f, longitudinal section of gastropore tube flanked by two internal male ampullae, $\times 44$. *Sporadopora marginata* (h, 2 syntypes from NZGS): $\times 2.2$.

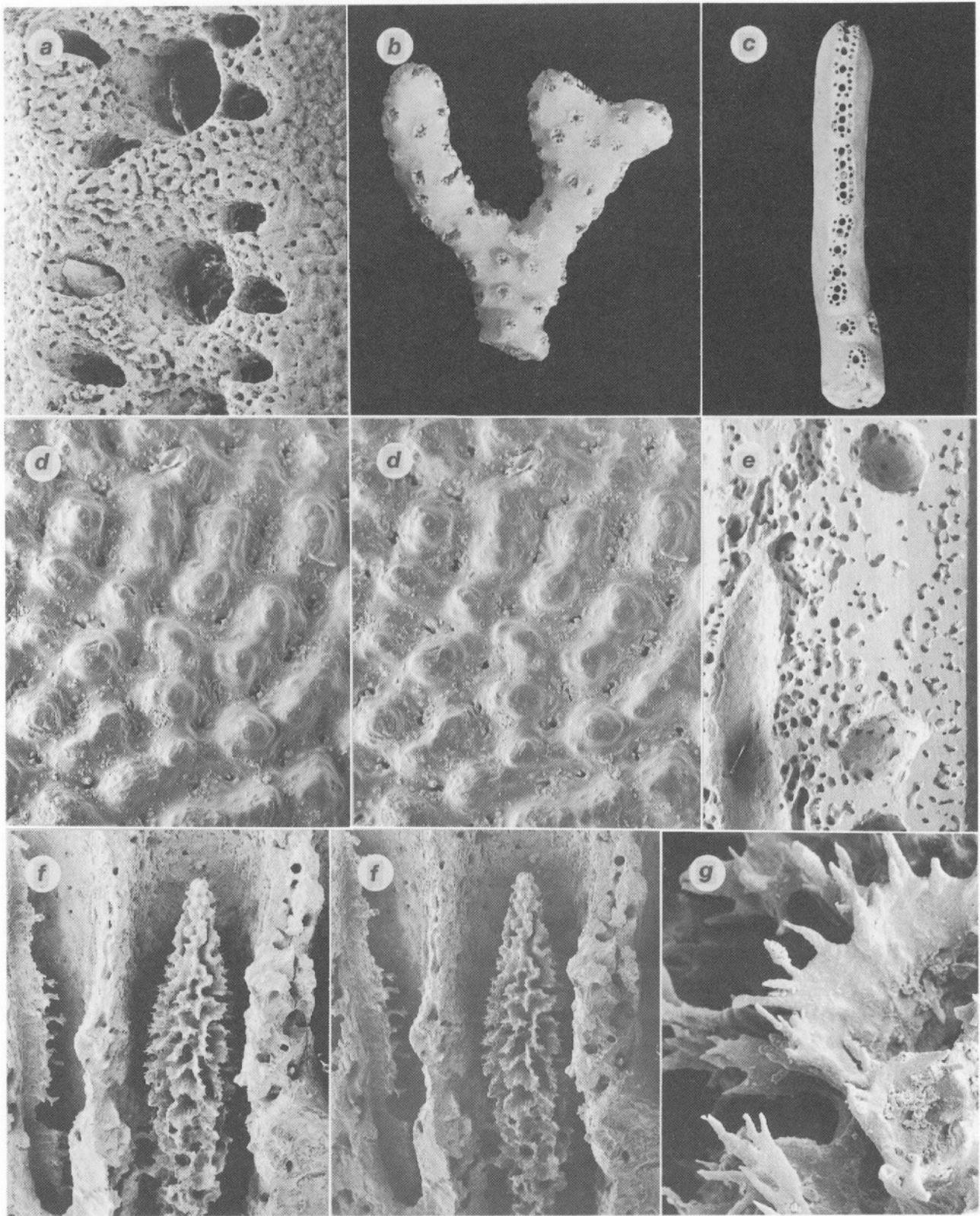


PLATE 30. *Distichopora dispar* (a, b, f, g, D159, USNM 85116; c, holotype, D159; d, e, D39, NZOI): a, pore row, x 32.5; b, colony with pseudocyclosystemate arrangement of pore types, x 2.2; c, colony with typical pore-row arrangement of pore types, x 3.0; d, tuberculate coenosteal texture, x 135, stereo pair; e, longitudinal section of branch illustrating two internal male ampullae (branch surface to right), x 30.5; f, gastrostyle with dactyloridge to left, x 54, stereo pair; g, spination of gastrostyle ridge, x 545.

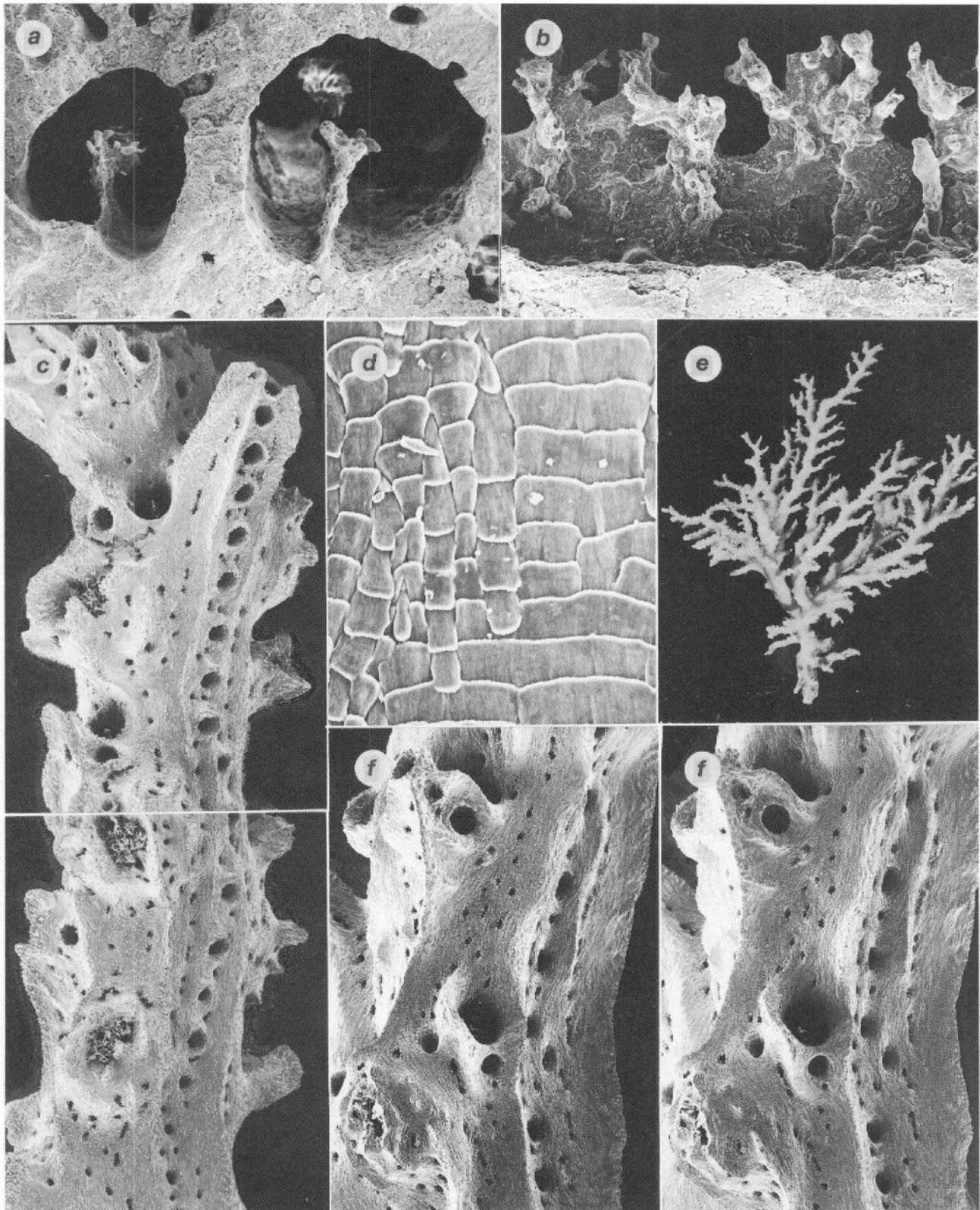


PLATE 31. *Distichopora dispar* (a, D159, USNM 85116; b, D39, NZOI): a, axial view of two dactyloridges, x 150; b, lateral view of a dactyloridge, x 265. *Systemapora ornata* (c, d, f, P46, USNM 85117; e, holotype, P46, NZOI): c, f, branch segment illustrating aligned dactylopores, lipped gastropores, and several male ampullae, x 30.5, x 38, respectively (f is a stereo pair); d, imbricate coenosteal texture with alternating polarity, x 600; e, holotype colony, x 0.7.

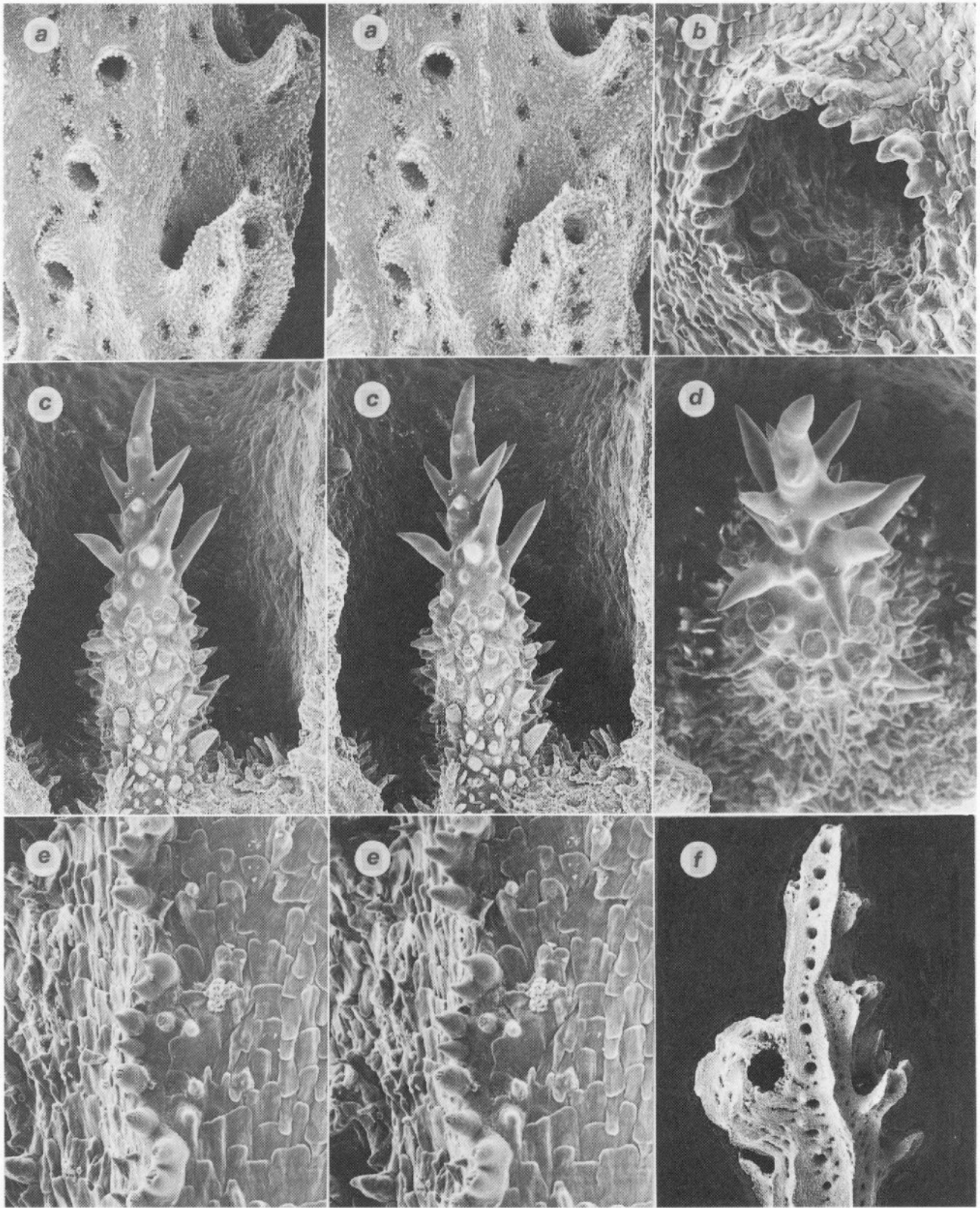


PLATE 32. *Systemapora ornata* (a-f, P46, USNM 85117): a, aligned dactylopores and two lipped gastropores, x 50, stereo pair; c, dactylopore spine, x 320; c, d, gastrostyle, x 240, x 405, respectively (c is a stereo pair); e, aligned coenosteal spines separating lateral branch edge from branch face, x 455, stereo pair; f, branch tip bearing a female ampulla with efferent pore, x 18.1.

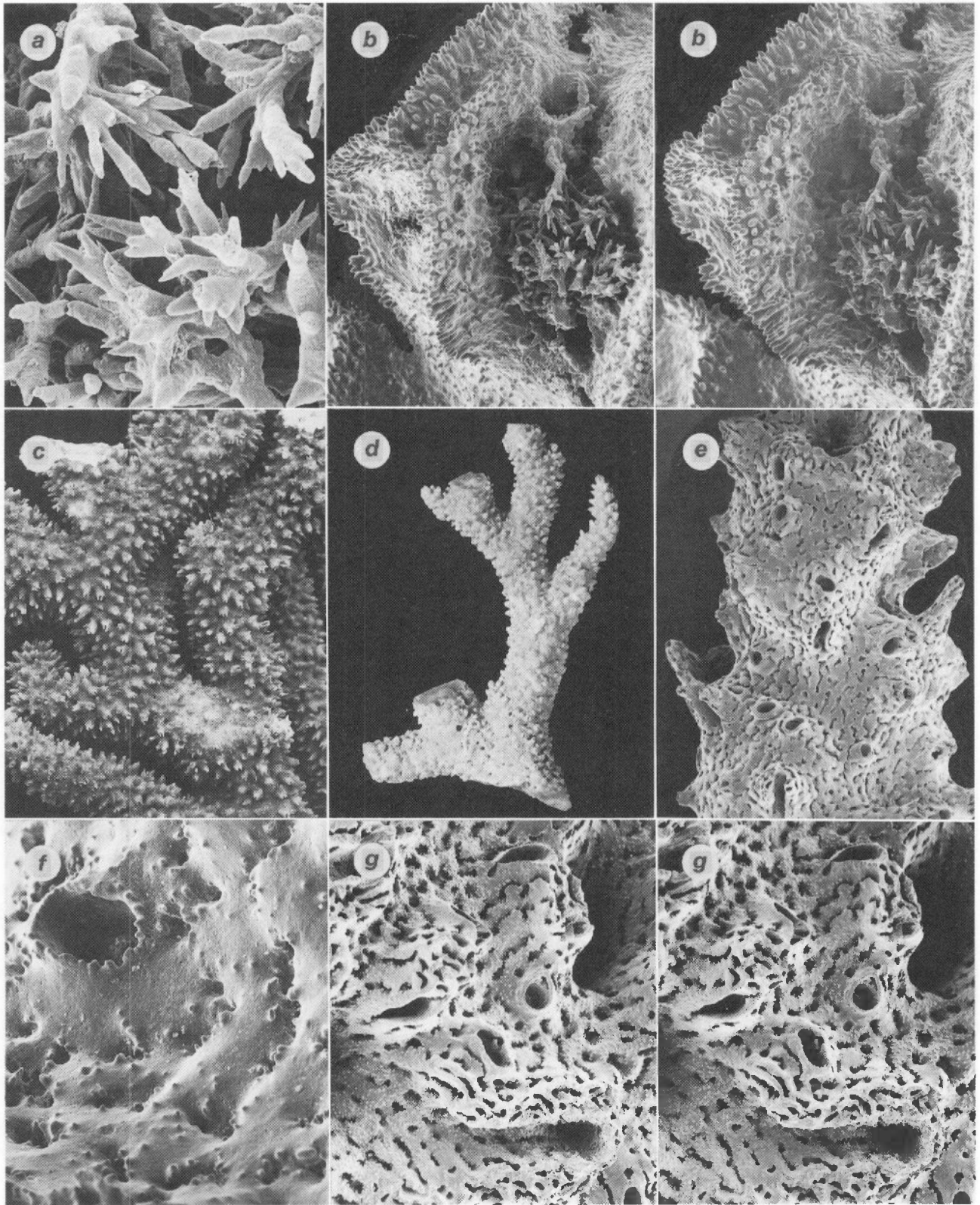


PLATE 33. *Systemapora ornata* (a, b, P46, USNM 85117): a, cluster of spines protecting male efferent pore, x 475; b, male ampulla, x 110, stereo pair. *Errina novaezelandiae* (c, syntype of *E. n. forma benhami*, Manchester Museum, Boschma #138; d, syntype of *E. n. forma ramosa*, BM(NH) 1950.1.11.83; e, Q741, USNM 85121; f, Q748, USNM 85122; g, paratype of *E. cruenta*, D156, USNM 76879): c, d, branches with dactylopore spines, x 3.8, x 2.7, respectively; e, branch segment with dactylopore spines and lipped gastropores, x 40; f, reticulate-granular coenosteal texture and one conical dactylopore spine, x 235; g, tall, horseshoe-shaped and small, mound-shaped dactylopores, x 68.5, stereo pair.

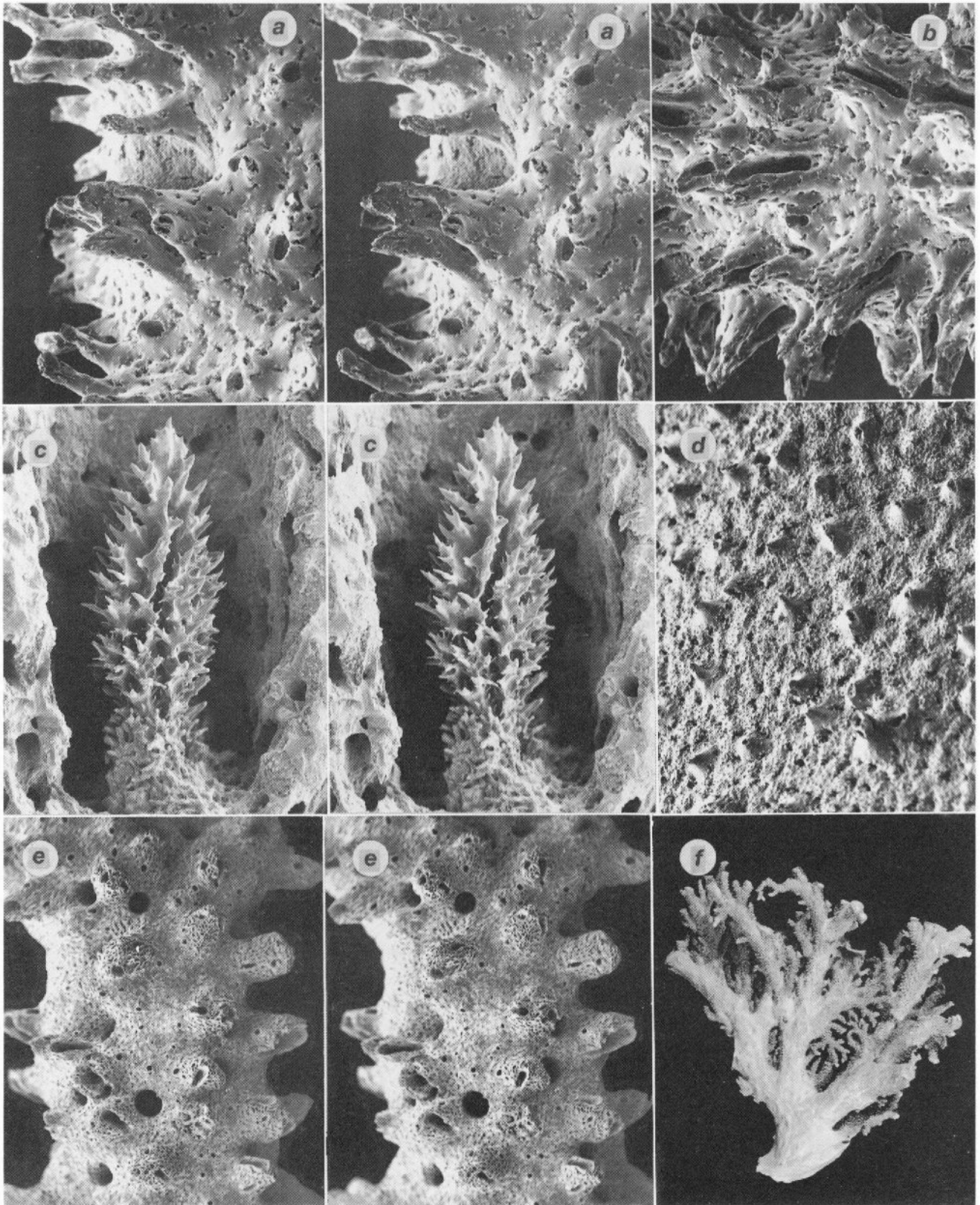


PLATE 34. *Errina novaeselandiae* (a, b, d, Q748, USNM 85122; c, paratype of *Errina cruenta*, D156, USNM 76879): a, b, dactylopore spines, x 61, x 48, respectively (a is a stereo pair); c, gastrostyle, x 160, stereo pair; d, coenosteal papillae, x 55.5. *Errina chathamensis* (e, f, C618, USNM 85125): e, branch segment with compound dactylopore spines, x 18.5, stereo pair; f, red colony, x 0.45.

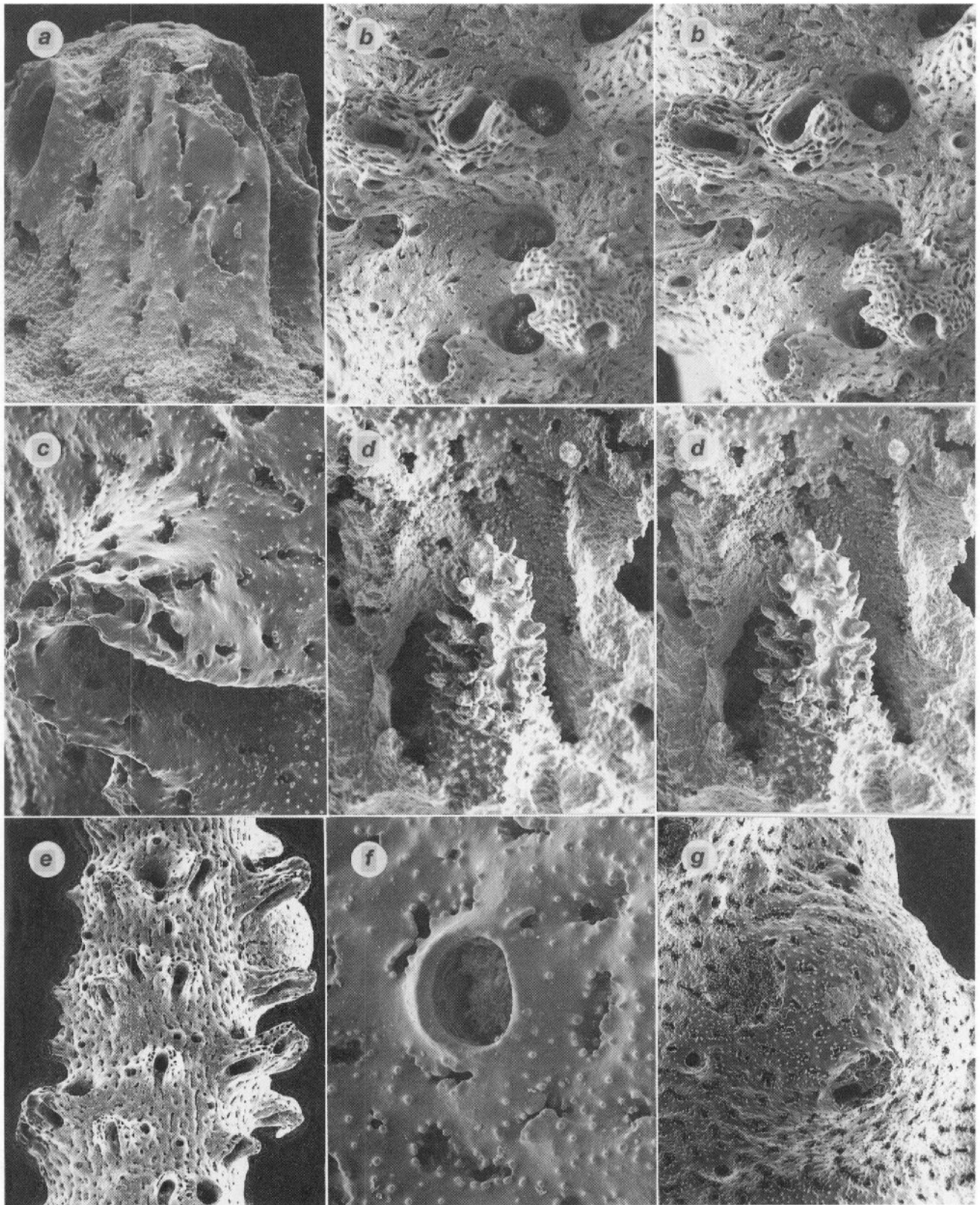


PLATE 35. *Errina chathamensis* (a, c, e, g, J55 [red form]; b, d, f, D878 [white form]): a, b, compound and small conical dactylopore spines, x 160, x 42.5, respectively; c, simple dactylopore spine, x 150; d, gastrostyle, x 160, stereo pair; e, female branch segment with both types of dactylopore spines, x 23; f, small conical dactylopore spine, x 240; g, female ampulla, x 53.

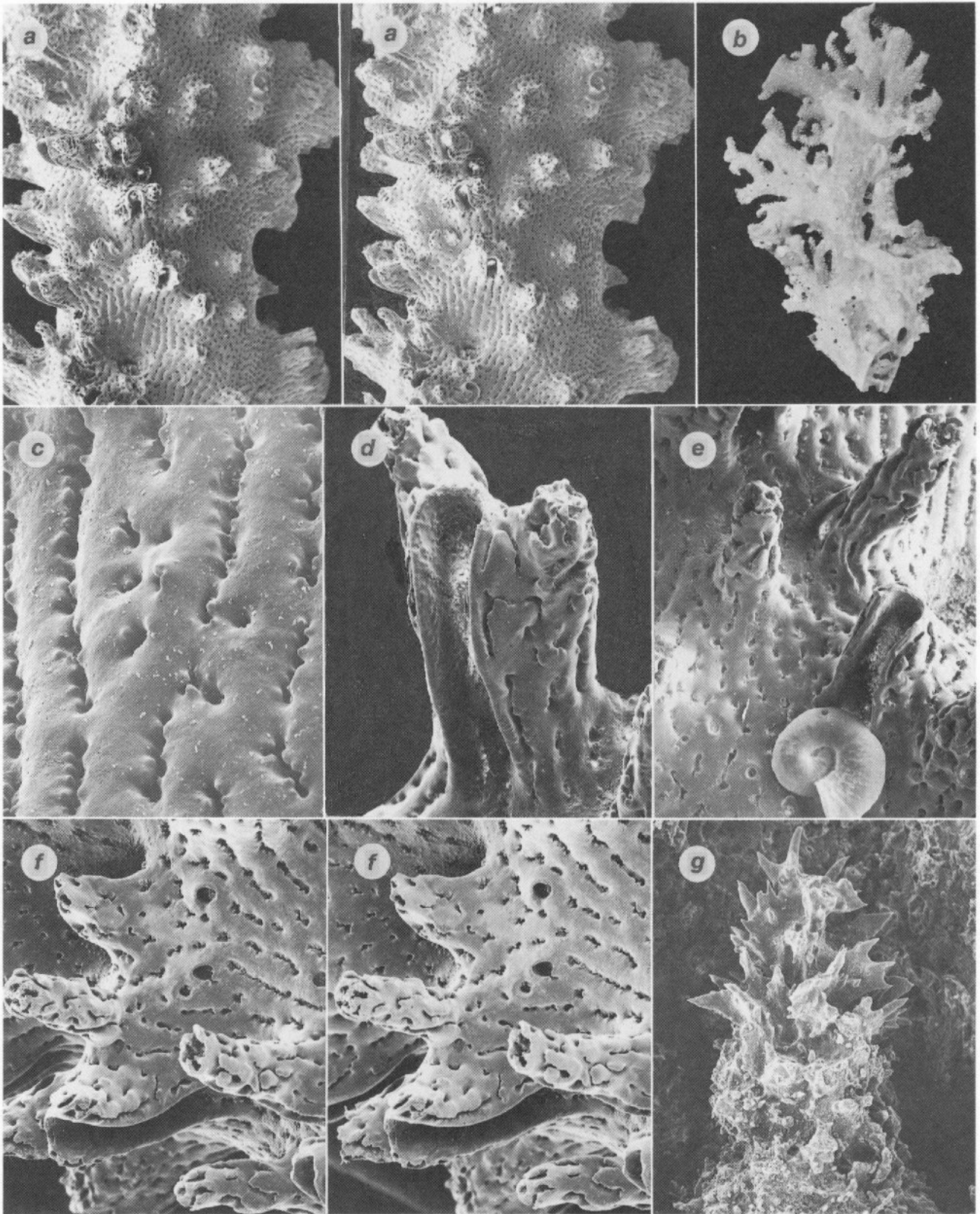


PLATE 36. *Errina laevigata* (a-g, holotype, D145): a, branch segment with dactylopore spines, x 20, stereo pair; b, holotype colony, x 0.73; c, smooth coenosteal texture, x 210; d, dactylopore spines with accessory spinules, x 105; e, f, dactylopore spines and spinules, x 72.5, x 68.5, respectively (f is a stereo pair); g, gastrostyle, x 310.

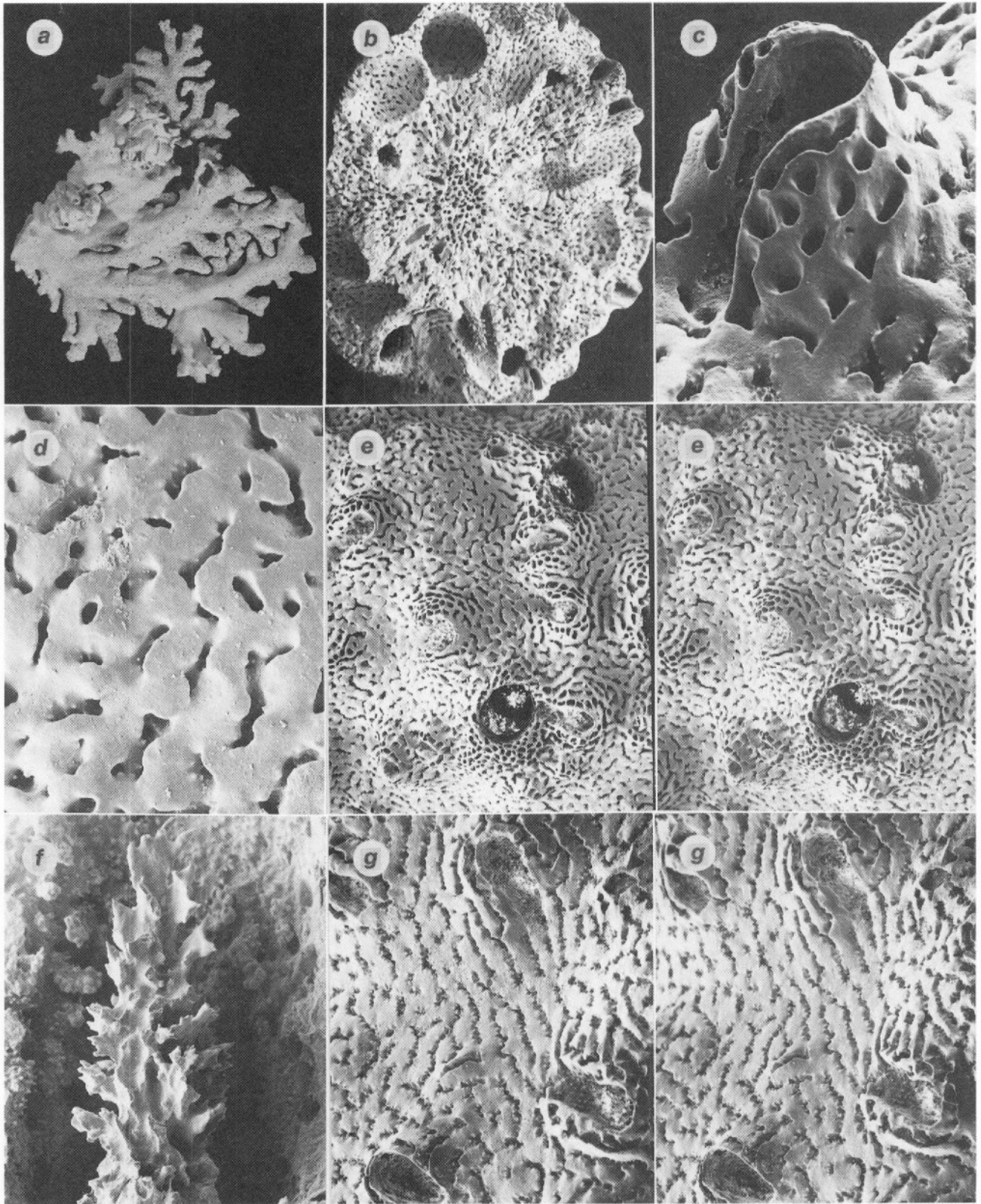


PLATE 37. *Errina hicksoni* (a-g, A743, USNM 76517): a, holotype colony, x 0.85, NZOI; b, branch cross section illustrating a gastrostyle and several ampullae, x 23.5; c, imbricate dactyloporose spine, x 180; d, smooth coenosteal texture, x 180; e, g, coenosteum bearing dactyloporose spines, x 39, x 87, respectively (both are stereo pairs); f, gastrostyle and ring palisade, x 200.

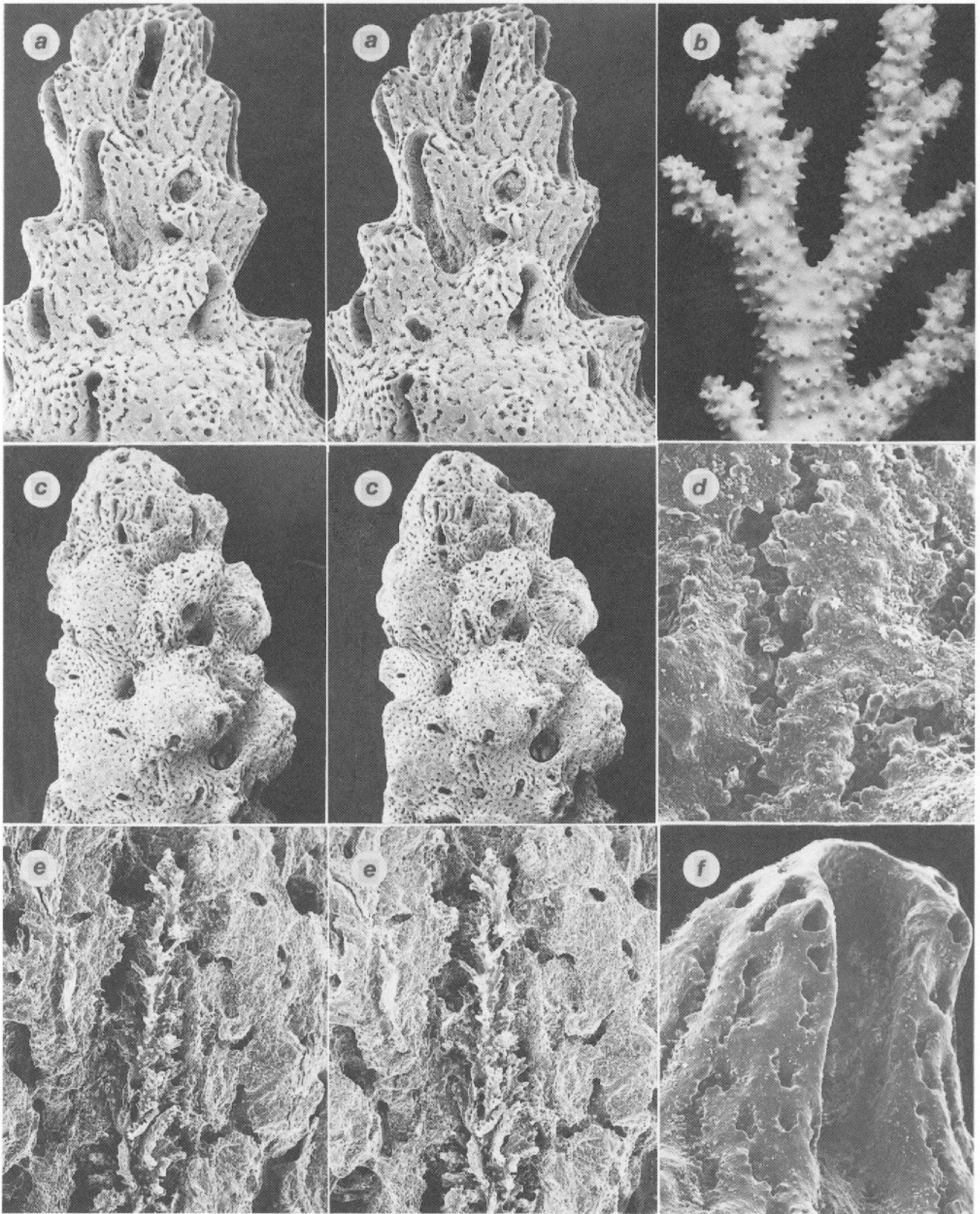


PLATE 38. *Errina cooki* (a, c-f, A444, USNM 60252; b, syntype, Manchester Museum, Boschma #140): a, branch tip illustrating dactylopore spines and lipped gastropore, x 50, stereo pair; b, branch of syntype, x 3.5; c, branch tip illustrating dactylopore spines, gastropores, and female ampullae, x 20, stereo pair; d, reticulate-granular coenosteal texture, x 510; e, gastrostyle, x 135, stereo pair; f, dactylopore spine, x 195.