

5012

1842

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EXPLORING EXPEDITION.

DURING THE YEARS

1838, 1839, 1840, 1841, 1842.

UNDER THE COMMAND OF

CHARLES WILKES, U. S. N.

ATLAS.

ZOOLOGY.

BY

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GEOLOGIST OF THE EXPEDITION.

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PHILADELPHIA:  
LPA AND BLANCHARD.  
1842.



# ZOOPHYTES.

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= `ndarray`; 7 x 5 matrix showing average and ratio; 2 x 2 matrix  
 = `ndarray`; 5 x 5 matrix of random values

Fig. 2. Behavior of the function  $\eta$  with  $\alpha$ .

Fig. 4. Polyethylene terephthalate, molecular weight 40,000, polypropylene, and a mixture of copolymers and polypropylene.

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Fig. 1. Monthly average, maximum in order, water temperature, January of the month. 1 - end of the previous year of the year.

[see on equal 13, animals, enlarged, 12 part of a transverse section of the retina, 934]

Fig. 2. *Enchytraeus* sp. no. 10. Lateral view; 20x.

increase of a positive charge:  $\delta$   $\downarrow$  leads and width of cathode  
 enlarged  $\rightarrow$  p. 260

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Fig. 3. Model of the system of the TPU and the TPU-1000.

Fig 3 *Fucella stelleri*, profile view of mandible, natural size

[illegible]

Fig. 4. *Revelis* SUTHERS, profile view of cranial nerve cell. This shows an outline of nucleus with the nucleolus (nuc.) as

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Fig 9. *Pinnula distans* (Pachydictya), and *Sphaerium* (b) = *S. sp.*

Fig. 7. FINEST DETAIL:  $\text{Im} - p$  FOR  
FUR. Same as Fig. 6, except  $\text{Im} - p$  FOR  
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even; but, and under no class — p. 354

Fig. 1. FEMCA results: a) shear; b) maximum principal stress.

## PATK 18

Fig. 1. Results of the first, a second, and third experimental series. 1 - a profile of the surface of the film, showing an increase in thickness and the appearance of surface pores. Fig. 2. Change in the specific mass of the film. Fig. 3. A large specimen from the membrane — 1966.

Fig. 4. Pinned (1975), motioned time of arrival, 1975, and time of departure, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2

Fig. 6. Female *Conus* sp. (1), part of an anal, expanded, mixed sex — p. 90.

Fig. 7. Fossiliferous sedimentary rock, showing outcrop.

Eq. 5 Predicted FISHABILITIES are all expected values.

—p. 276

Page 8 Page 8  
 10/10/1964 10/10/1964  
 10/10/1964 10/10/1964

Fig. 1. Packed Enrichment — natural tower, the natural gas.

\_\_\_\_\_





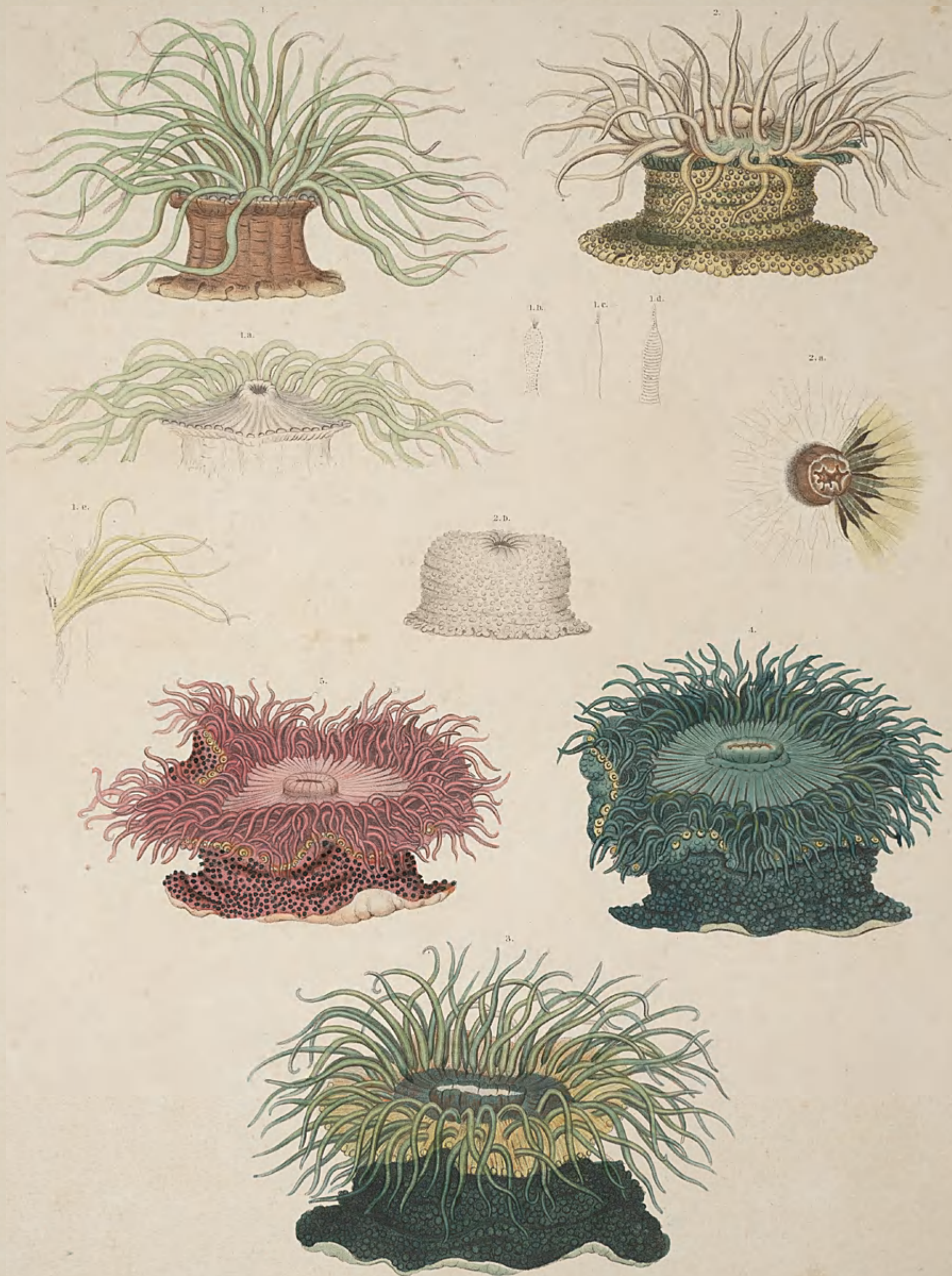












1. 1. a. b. c. d. e. *Actinia flagellifera*.  
2. 2. a. b. *A. pustulata*.

3. *Actinia veratra*.  
4. 5. *A. clematis*.

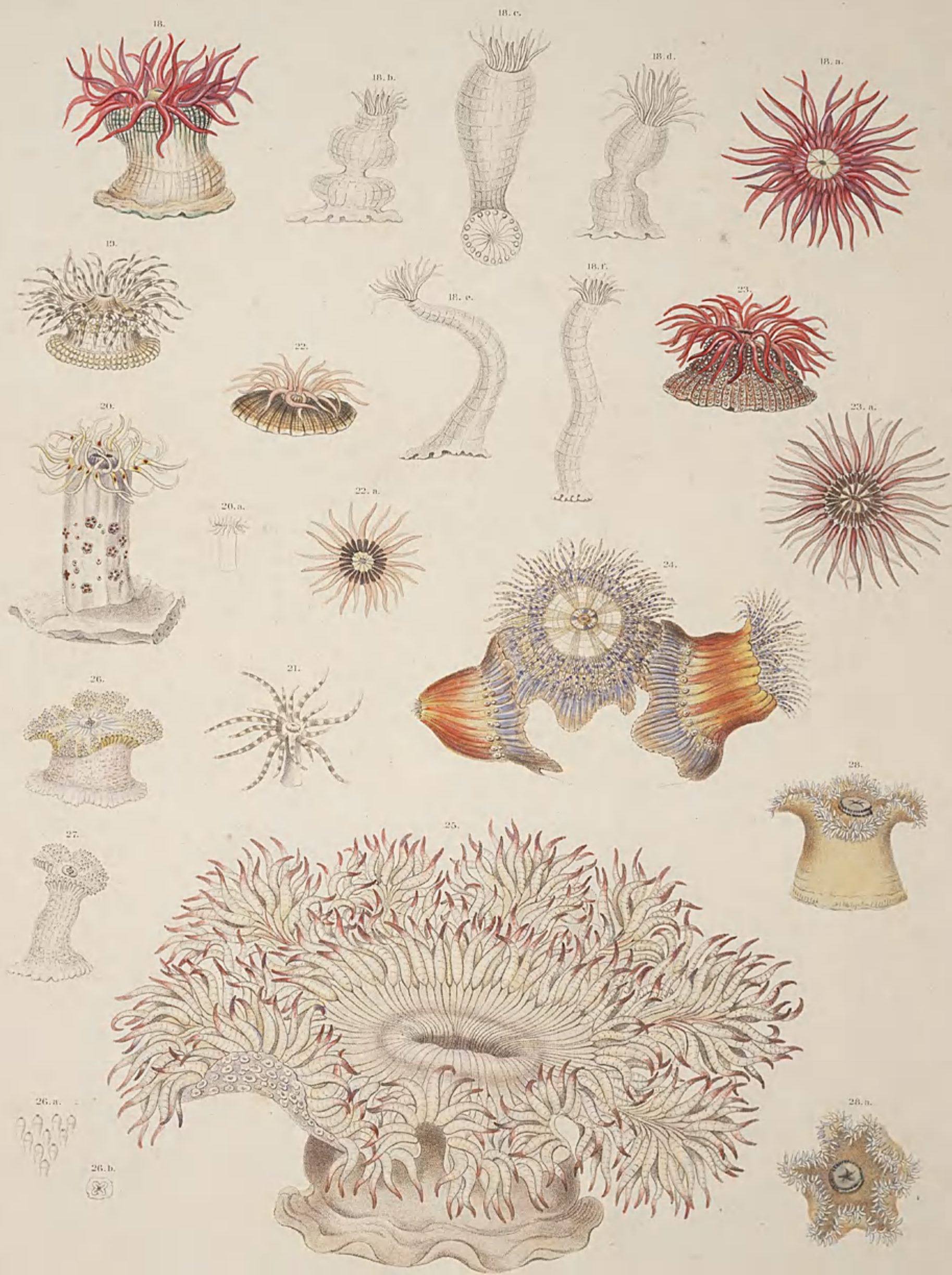




6. 7. B. *Actinia* *flavida*,  
 9. 10. A. *actinifera*,  
 11. 12. a. b. *A.* *granulosa*,  
 13. 14. a. b. *A.* *clavicornis*.

12. 13. 14. 15. *Actinia* *polymorpha*,  
 16. *A.* *polymorpha*,  
 17. *A.* *clavicornis*.





18. 18. a. b. c. d. e. f. *Actinia vancouverensis*.  
 19. A. *monilifera*.  
 20. 20. a. *prolonga*.  
 21. *youngi*.  
 22. 22. a. *luculata*.

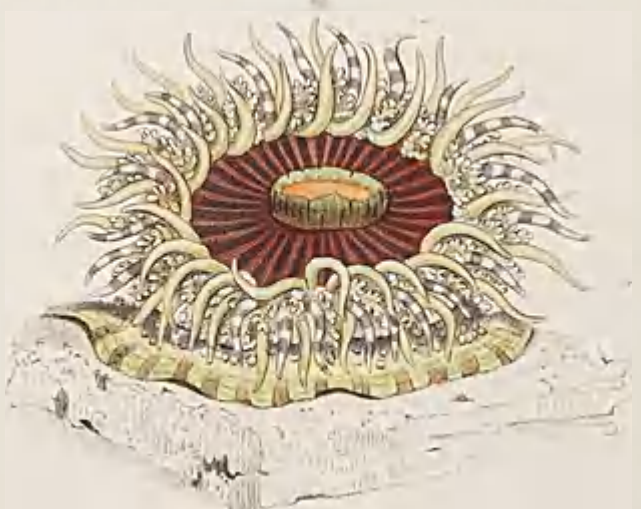
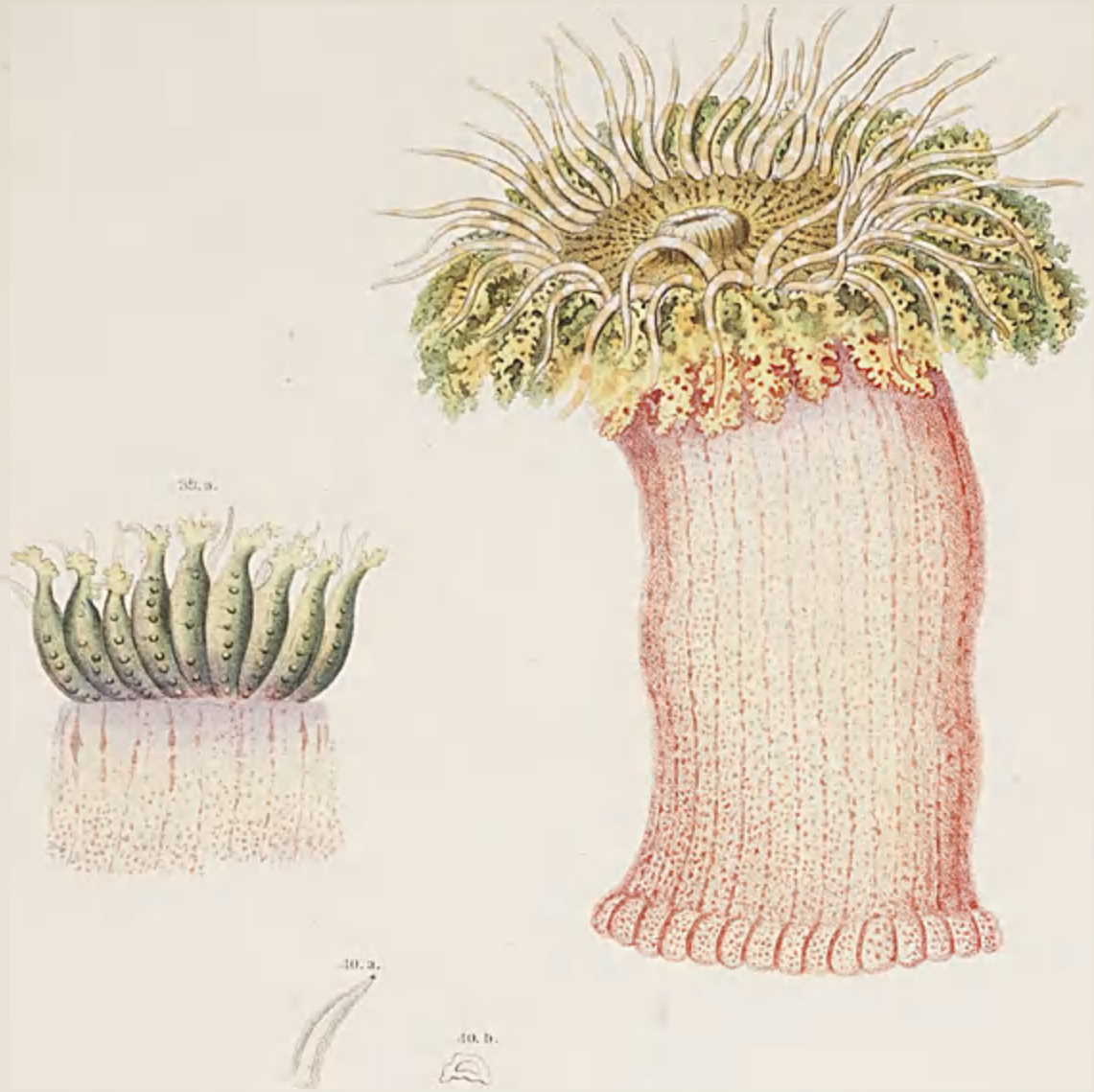
23. 23. a. *Actinia orientata*.  
 24. *decorata*.  
 25. *pauitotensis*.  
 26. 26. a. b. c. *multis*.  
 27. 27. a. *archiplex*.





|     |          |         |     |       |          |            |
|-----|----------|---------|-----|-------|----------|------------|
| 21. | Actinia. | papava. | 31. | 31 a. | Actinia. | rubra.     |
| 22. | 22 a.    | A.      | 32. | 32 a. | A.       | gemma.     |
| 23. | 23 a.    | A.      | 33. | 26 a. | A.       | cilia.     |
| 24. | 24 a b.  | A.      | 34. | 37 a. | A.       | rhodora.   |
| 25. | 25 a.    | A.      | 35. | 38 a. | A.       | actinista. |





39. a. Metridium prolatum.  
39. b. Metridium prolatum.  
40. a. Metridium prolatum.  
40. b. Metridium prolatum.





1. c. b. e. d. e. Euphyllia splendens.

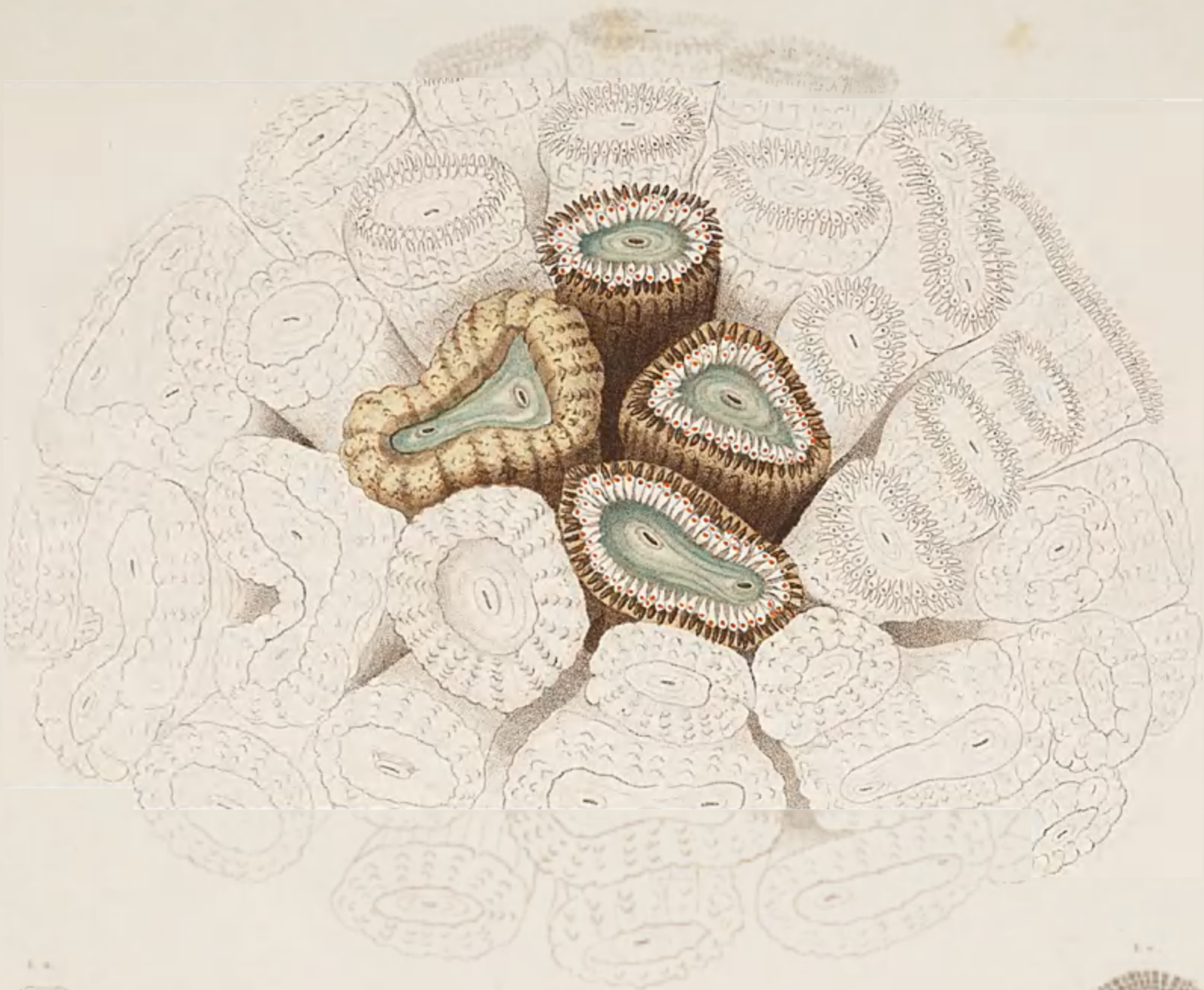
2. 2. a. E. spinulosa.

3. a. n. h. a. d. o. Euphyllia rigosa.

4. 1. a. h. E. coronata.

5. 6. 6. a. Euphyllia pavonina.





1. 1 a. b. c. *Mussa carthus*.  
2. 2 a. b. *M. costata*.

3. *Mussa* \_\_\_\_\_ i

3. a. b. c. *Mussa cytherea*.  
4. *M. andalus*.



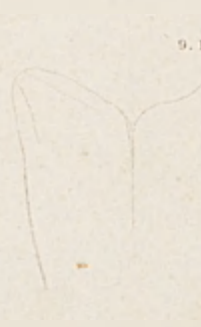
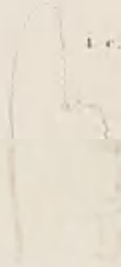
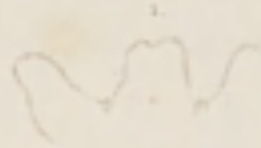


1. a. b. c. *Mussa sinensis*.  
2. 2. a. b. *M. multilobata*.  
3. 3. a. b. *M. cerebrylloides*.  
4. *M. angulosa*.

5. *Mussa n. galis*.  
6. *M. crispata*.  
7. *M. flagilis*.

8. *Mussa cavendishii*.  
9. *M. diplocarpa*.  
10. *M. nobilis*.  
11. H. a. V. *ovata*.





- |                |            |                |    |            |              |                |            |          |           |         |          |                |              |
|----------------|------------|----------------|----|------------|--------------|----------------|------------|----------|-----------|---------|----------|----------------|--------------|
| 1.             | Manicaria  | amarantifolia. | 5. | Canthoclis | a. distenta. | 6. a. b. c. E. | multiloba. | 7. d. a. | Lophyllia | aspera. | 8. a. b. | Lophyllia      | cuticularia. |
| 2.             | Al.        | amarantifolia. |    |            |              |                |            |          |           |         | 9.       | E.             | lineata.     |
| 3.             | Al.        | areolata.      |    |            |              |                |            |          |           |         | 10.      | Pridacophyllia | laetitia.    |
| 1. 1. 2. 3. 4. | Canthoclis | lineata.       |    |            |              |                |            |          |           |         | 11.      | a.             | princeps.    |





1. a. b.

2. a. b.

3. a. b. c.

4. a. b. c. d. e.

5. a. b. c.

6. a. b.

7. a. b.

8. a. b.

9. a. b.

10. a. b.

11. a. b.

12. a. b.

13. a. b.

14. a. b.

15. a. b.

16.

17.

18.

19.

20.

21. a. b.

22. a. b.

23. a. b.

24. a. b.

25. a. b.

26. a. b.

27. a. b.

28. a. b.

29. a. b.

30. a. b.

31. a. b.

32. a. b.

33. a. b.

34. a. b.

35. a. b.

36. a. b.

37. a. b.

38. a. b.

39. a. b.

40. a. b.

41. a. b.

42. a. b.

43. a. b.

44. a. b.

45. a. b.





1. 1 a b c d. *Astraea speciosa*.  
 2. 2 a b c d. *A. pulchra*.  
 3. 3 a b. *A. pulchra*.  
 4. 4 a b c d. *A. diparea*.

5. 5 a b c d. *Astraea porosa*.  
 6. 6 a b c d. *A. flexuosa*.  
 7. 7 a b c. *A. boea viridis*.  
 8. 8 a b c d. *A. vivens*.





|    |             |                      |
|----|-------------|----------------------|
| 1. | a, b, c,    | Asclerose columnata. |
| 2. | a, b, c, d, | floribunda.          |
| 3. | a, b, c,    | marginata.           |
| 4. | a, b,       | illinoensis.         |
| 5. | a, b,       | versipex.            |
| 6. | a, b, c,    | denticulata.         |

|                   |                     |
|-------------------|---------------------|
| а. б. в. г. д. е. | Азот, азотобактерия |
| б. в. г. д. е. ж. | кислород            |
| в. г. д. е. ж. з. | водород             |
| г. д. е. ж. з. и. | углерод             |
| д. е. ж. з. и. й. | кальций             |
| е. ж. з. и. й. к. | железо              |
| ж. з. и. й. к. л. | медь                |

[illegible]



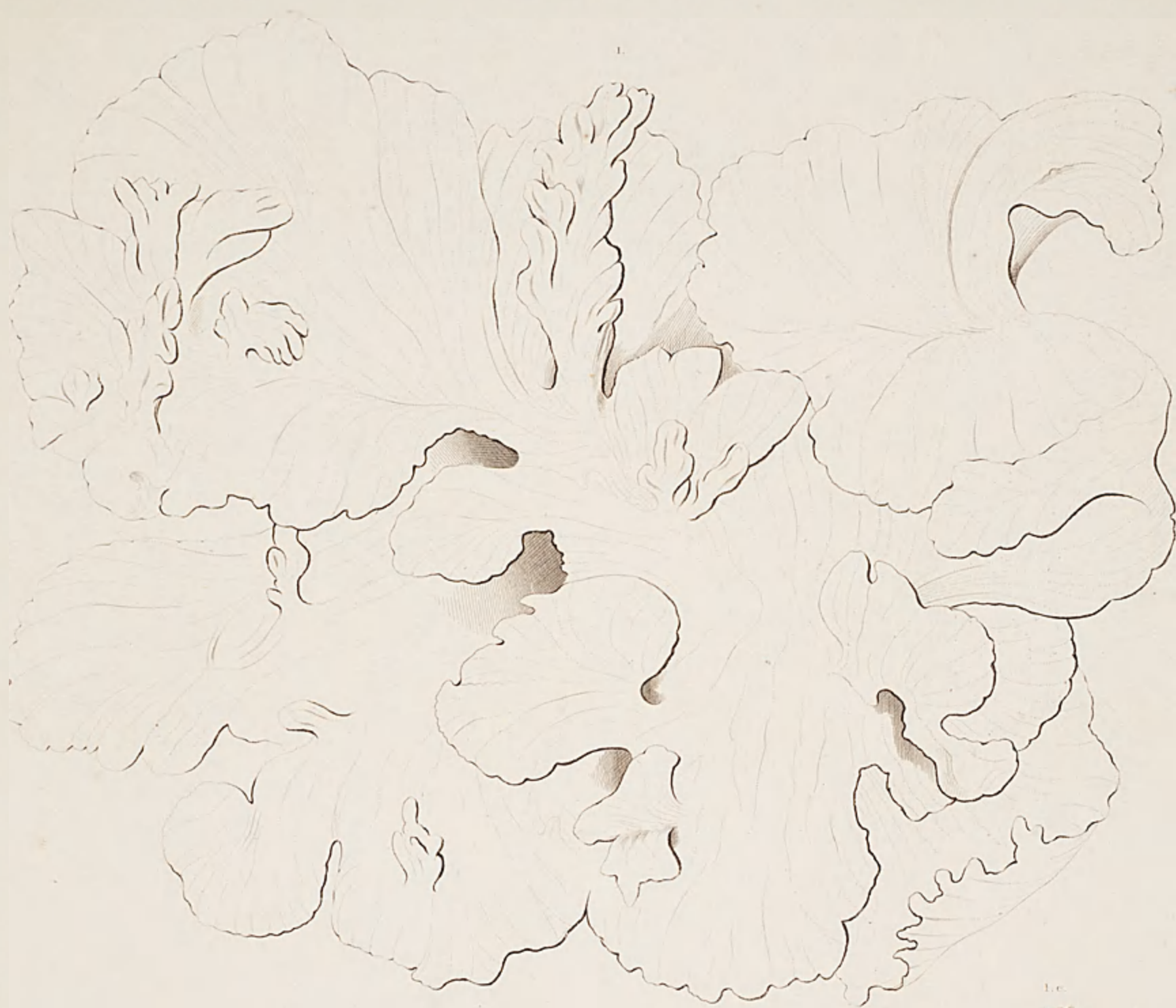


- |                 |               |                    |                   |               |                     |                         |                    |                  |
|-----------------|---------------|--------------------|-------------------|---------------|---------------------|-------------------------|--------------------|------------------|
| 1.              | <i>Astrea</i> | <i>tenella.</i>    | 6 6 a. b. c.      | <i>Astrea</i> | <i>parviscula.</i>  | 11 11 a. b.             | <i>Astrea</i>      | <i>robusta.</i>  |
| 2 2 a. b. c. d. | <i>A.</i>     | <i>favistella.</i> | 7 7 a. b. c.      | <i>A.</i>     | <i>favosites.</i>   | 12 12 a. b. c. d. e.    | <i>Monicularia</i> | <i>viridula.</i> |
| 3.              | <i>A.</i>     | <i>favistella.</i> | 8                 | <i>A.</i>     | <i>cerium.</i>      | 13 13 a. b. c. d. e. f. | <i>Orbicella</i>   | <i>ovum.</i>     |
| 4 4 a. b. c. d. | <i>A.</i>     | <i>oximia.</i>     | 9 9 a. b. c. d.   | <i>A.</i>     | <i>tessevalera.</i> | 14 14 a. b.             | <i>Astrea</i>      | <i>porcata.</i>  |
| 5 5 a. b. c.    | <i>A.</i>     | <i>rimosa.</i>     | 10 10 a. b. c. d. | <i>A.</i>     | <i>robusta.</i>     | 15 15 a.                |                    |                  |





|    |           |              |     |                |           |            |     |              |             |
|----|-----------|--------------|-----|----------------|-----------|------------|-----|--------------|-------------|
| 1. | Meandrium | abyssinicum. | 7.  | 7. a. b. c. d. | Meandrium | tenues.    | 13. | Clonophyllia | pectinata.  |
| 2. | M.        | caudiformis. | 8.  | 8. a. b.       | M.        | plexig.    | 14. | Cl. n.       | quadrate.   |
| 3. | 3. a.     | reticul.     | 9.  |                | M.        | oblongat.  | 15. | C.           | pachyphyl.  |
| 4. | 4. a. b.  | strigos.     | 10. | 10. a.         | M.        | multicost. | 16. | C.           | profunda.   |
| 5. | 5. a. b.  | rustica.     | 11. | 11. a. b.      | M.        | velata.    | 17. | Meandrium    | spongiosa.  |
| 6. | 6. a. b.  | gracilis.    | 12. | 12. a. b. c.   | M.        | dolosa.    | 18. | M.           | interrupta. |



1. 1. a. b. c. d. e. *Alcyonaria regalis*.

2. 2. a. *Murchisonia amplata*.





1. *Mentium speciosa*.  
2. 2. 2. a. b. *M. scaberrima*.

3. *Mentium laxa*.  
4. 4. a. b. *Phyllostoma tubifera*.

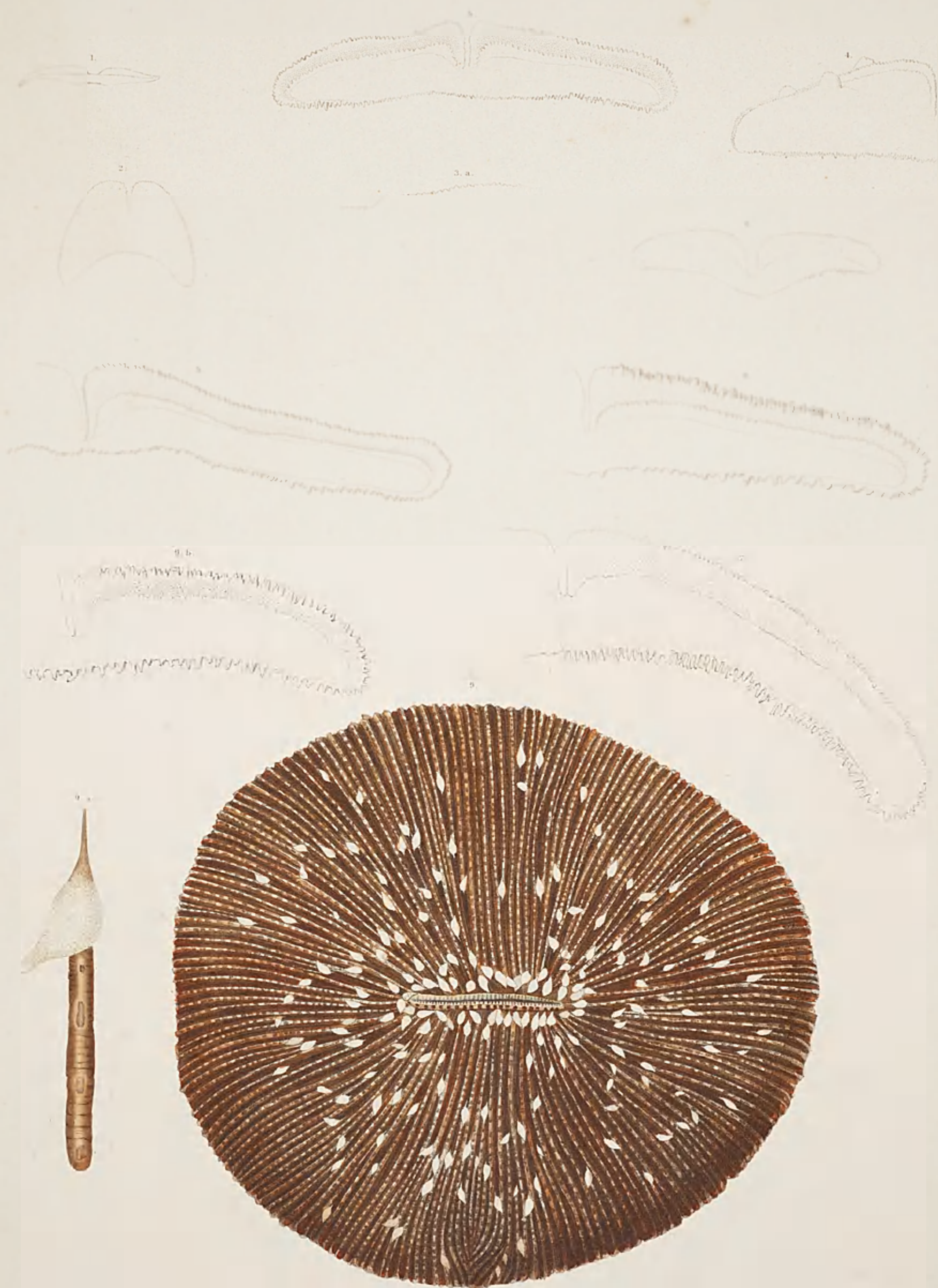




|           |           |                   |                  |
|-----------|-----------|-------------------|------------------|
| 1. 1 bis. | 1 a. 1 r. | <i>Meulinea</i>   | <i>rigida</i> .  |
| 2. 2 a.   | 1 b.      | <i>Echinopora</i> | <i>reflexa</i> . |

|                |            |          |
|----------------|------------|----------|
| 6. a. a.       | Echinozypa | modulata |
| 7. b. a. b. c. | E.         | horrida  |

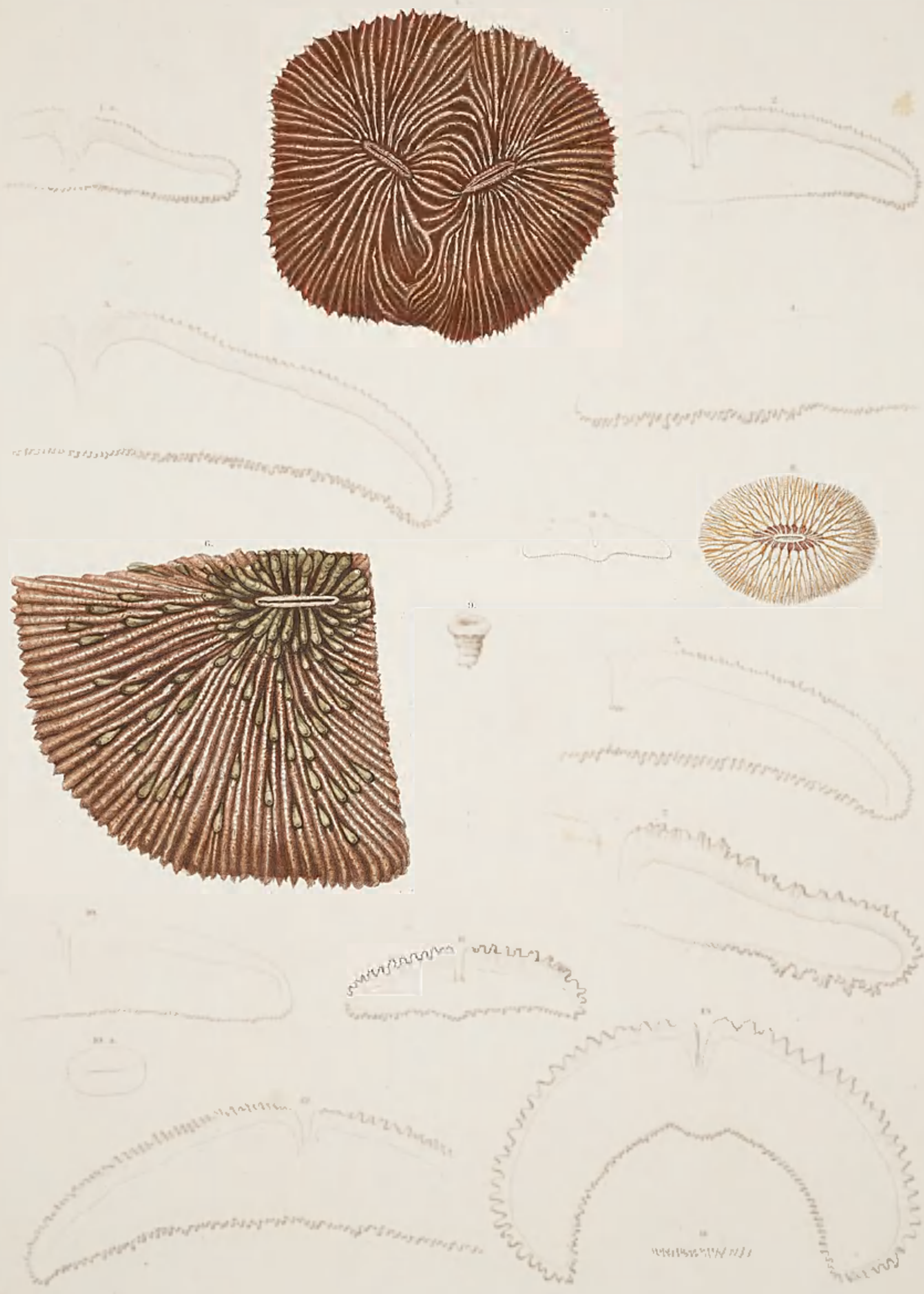




1. *Fungia tenuis*.  
 2. *F. glans*.  
 3. 3. a. *F. discus*.  
 4. *F. dentigera*.

- a. *Fungia nigroformis*.  
 6. *F. var. tenuifolia*.  
 7. *F. dentata*.  
 8. 8. 9. a. 10. *F. echinata*.





|    |        |          |     |        |           |     |        |               |
|----|--------|----------|-----|--------|-----------|-----|--------|---------------|
| 1. | Fungia | expanda. | 7.  | Fungia | lunata.   | 11. | Fungia | flavobrunnea. |
| 2. | F.     | lunata.  | 8.  | F.     | pacifica. | 12. | F.     | gigantea.     |
| 3. | F.     | caudata. | 9.  | F.     | pacifica. | 13. | F.     | caudata.      |
| 4. | F.     | caudata. | 10. | F.     | caudata.  | 14. | F.     | caudata.      |





1. *Paracalanus crassirostris*.  
 2. 2. a, b, c, d. *Paracalanus crassirostris*.  
 3. 3. a. *Paracalanus crassirostris*.  
 4. 4. a, b, c. *Paracalanus crassirostris*.  
 5. 5. a, b, c, d. *Paracalanus crassirostris*.  
 6. 6. a, b, c. *Paracalanus crassirostris*.





|            |                     |                    |
|------------|---------------------|--------------------|
| 1.         | <i>Herpetolabus</i> | <i>striatus</i>    |
| 2. 2 a. b. | <i>Malomitra</i>    | <i>pilosa</i>      |
| 3. 3 a. b. | <i>Polyphylla</i>   | <i>galeitornis</i> |
| 4.         |                     | <i>piliformis</i>  |

|               |                   |                  |
|---------------|-------------------|------------------|
| 5 a. b. c. d. | <i>Polyphylla</i> | <i>calys</i>     |
| 6.            | <i>Zooplus</i>    | <i>echinatus</i> |
| 7.            | <i>Agaricia</i>   | <i>apertosa</i>  |
| 8.            | <i>Agaricia</i>   | <i>nudata</i>    |





1. 1 a, b, c. *Agardhiella nigra*.  
2. *A. toxicollis*.  
3. *Pavonia papiracea*.  
4. *P. derussata*.

5, 5 a. *Pavonia pertusa*.  
6. *P. divaricata*.  
7. *P. luteolunata*.  
8. young of *Bidacophylla*.





1. *Saxonia lata*.

2. 2. n. *Pyrenia opassa*.





1. *Pavonia crassa* var. *ultrata*.  
2. *P. formosa*.

3, 3.a, 4. *Pavonia dendroica* var. *hirsutissima*.  
4. 1.a, 1.b, 1.c, 1.d. *P. clavus*.

1.



1. a.



2.



2. a.



2. b.



2. c.



2. d.



1. 1. n. l. e. *Psammogonyx californicus*  
2. 2. n. l. e. *P. phoca*





1. 1. a. b. c. Psammocora exosa.  
 2. 2. a. P. tossata.  
 3. 1. 1. a. Subgenus Heliophyllum.  
 5. 5. a. Genus Arachnophyllum.

6. 7. 7. a. Genus Clisiophyllum.  
 8. Cnathophyllum dianthus.  
 9. 9. a. b. c. d. Genus Columnaria.  
 11. G. Saccinola.





1 a b c d e f

Dendrophyllia

negrescens

3 Caryophyllia

hemessa

8.

9

lacillum

2

11

scabra

6

conferta

10 9 a.

10

dilatata

3

11

diaphana

7

arbuscula

10 10 a b c

Crematopora

truncata

4

11

coccinea

11

11

G.

cinetacantha



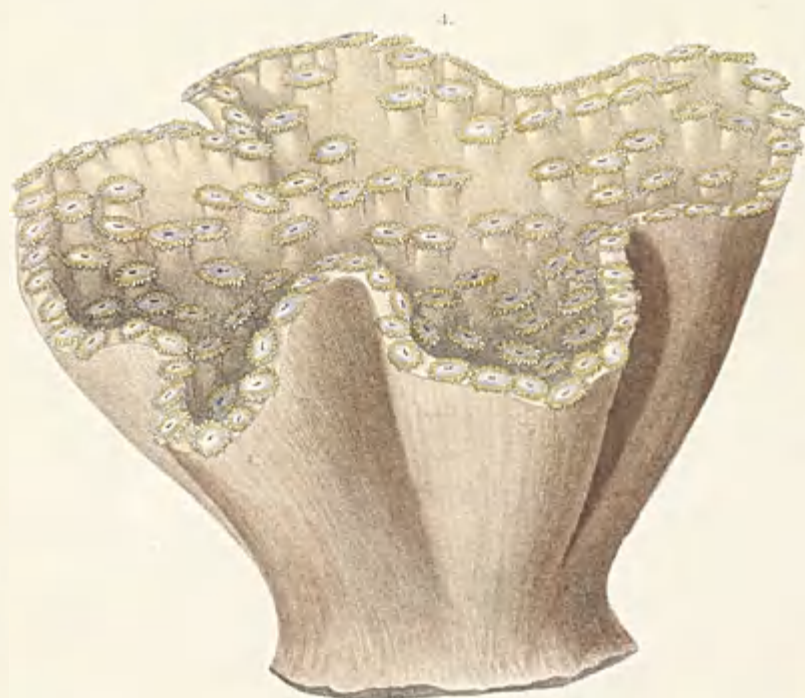
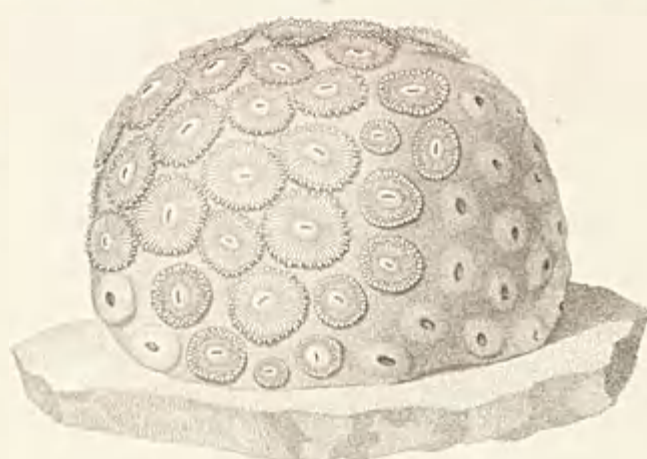






|                   |             |          |
|-------------------|-------------|----------|
| 1. 1. a. b. c.    | Gemunipora  | benasica |
| 2. 2. a. b.       | Gemunipora  | paldera  |
| 3. 3. a. b. c. d. | Astraeopora | pulchra  |





1. 1. a. Ascidia spiculosa.  
2. 2. a. 1. Ascidia spiculosa.

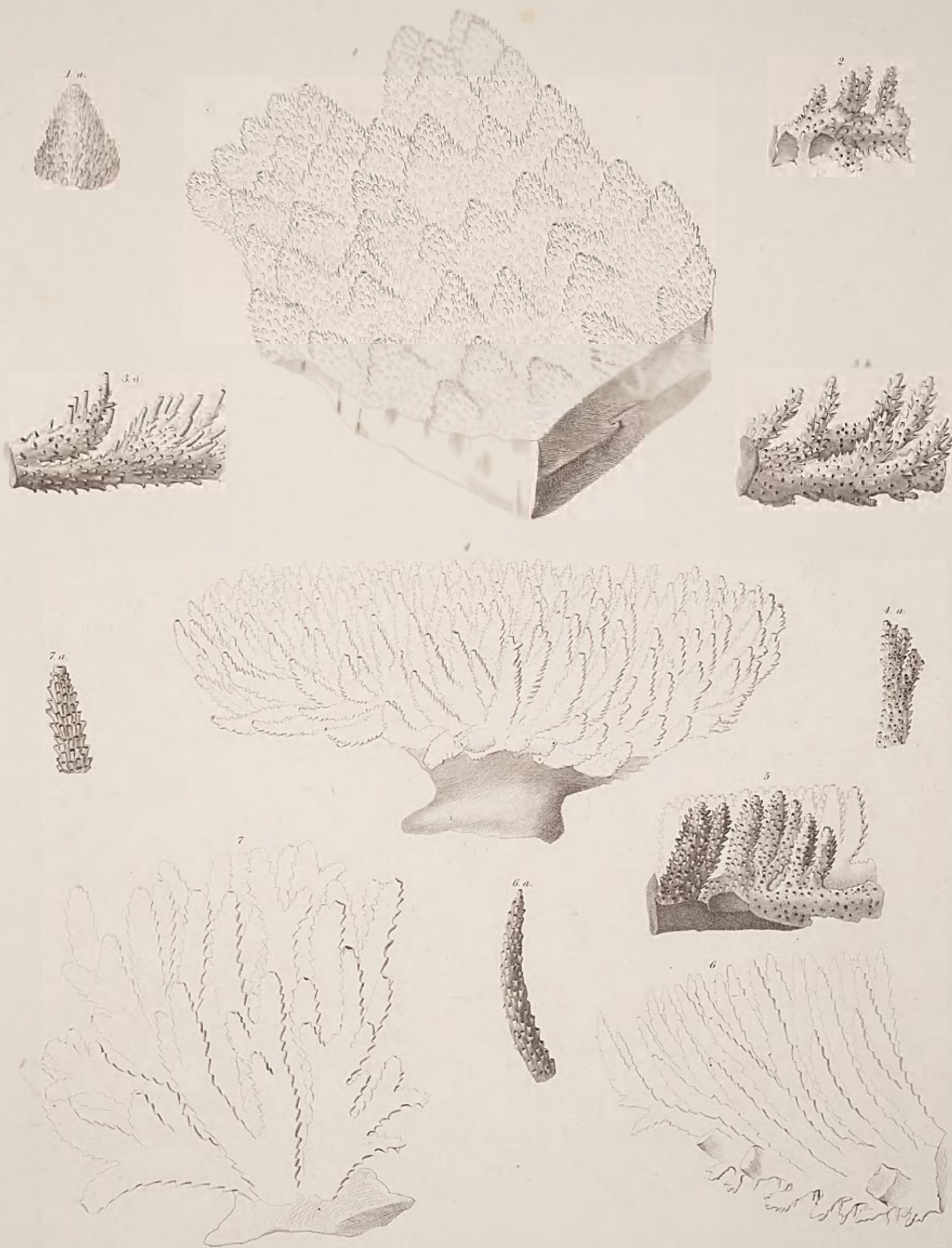
3. 3. a. b. c. d. e. f. g. h. Polydora cornuta.  
4. 4. a. b. c. d. e. f. g. h. Polydora cornuta.



|                         |             |            |
|-------------------------|-------------|------------|
| 1. $a_1, b_1, c_1, d_1$ | Widely used | Industrial |
| 2. $a_2, b_2, c_2, d_2$ | M           | Industrial |
| 3. $a_3, b_3, c_3, d_3$ | M           | Industrial |
| 4. $a_4, b_4, c_4, d_4$ | M           | Industrial |
| 5. $a_5, b_5, c_5, d_5$ | M           | Industrial |
| 6. $a_6, b_6, c_6, d_6$ | M           | Industrial |
| 7. $a_7, b_7, c_7, d_7$ | M           | Industrial |

|     |   |   |   |   |   |   |            |             |
|-----|---|---|---|---|---|---|------------|-------------|
| II  | a | b |   |   |   |   | Andropogon | apricus     |
| II  | a | b |   |   |   |   | M          | echinatus   |
| III | a | b |   |   |   |   | M          | adpressus   |
| II  | a | b | c | d | e | f | M          | pubescens   |
| II  | a | b | c | d | e | f | M          | glabrescens |
| III | c | b | c | d | e | f | M          | hirsutus    |





1. 1. a. Murexpora conigera  
2. Murexpora hyacinthos  
3. 3. b. Murexpora cytherea

2. 2. a. Murexpora tubicimaria

1. 1. a. Murexpora aureolosa  
2. Murexpora aureolosa  
3. 3. a. Murexpora aureolosa

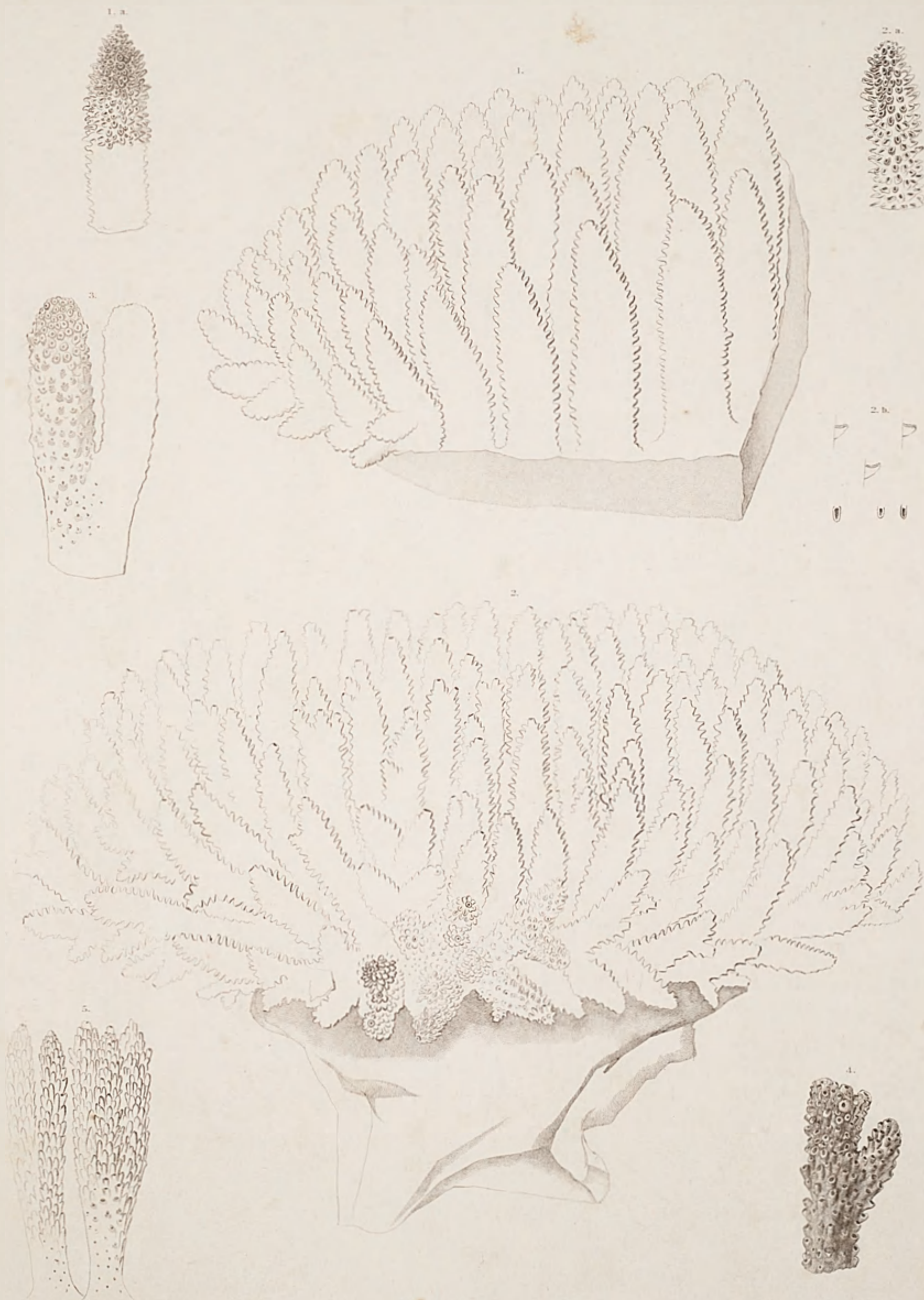




1. 1. a. b. c. d. e. f. *Madrupora prostrata*  
 2. 2. a. *M. millepora*  
 3. *M. subulata*

4. 4. a. b. *Madrupora spectans*  
 5. *M. squifeta* var.  
 6. *M. reflexus*





1. 1. a. *Martiquosa pusilligera*.  
2. 2. a. b. *M. nana*.

3. *M. appressa*.

4. *M. elongata*.  
5. *M. acuminata*.

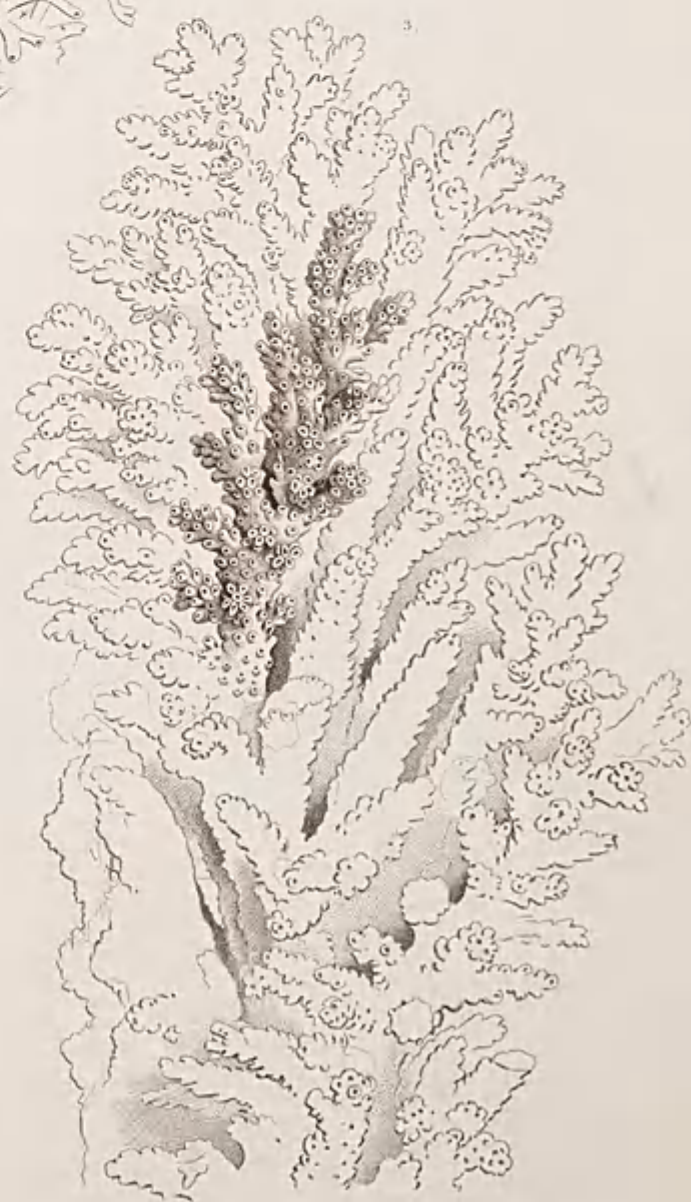
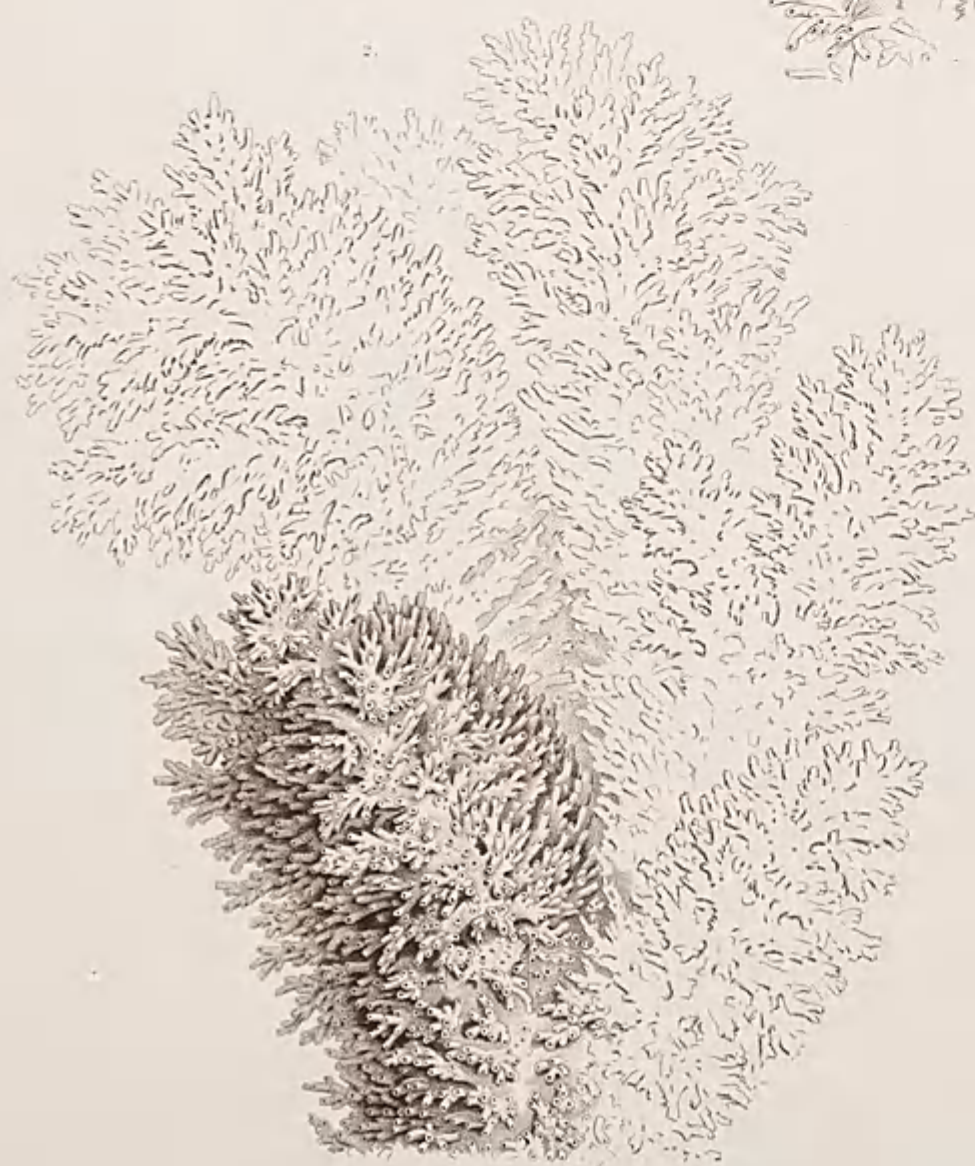




1. *Madrupora* *valida*  
 2. *M.* *cerealis*  
 3. *M.* *validissima*

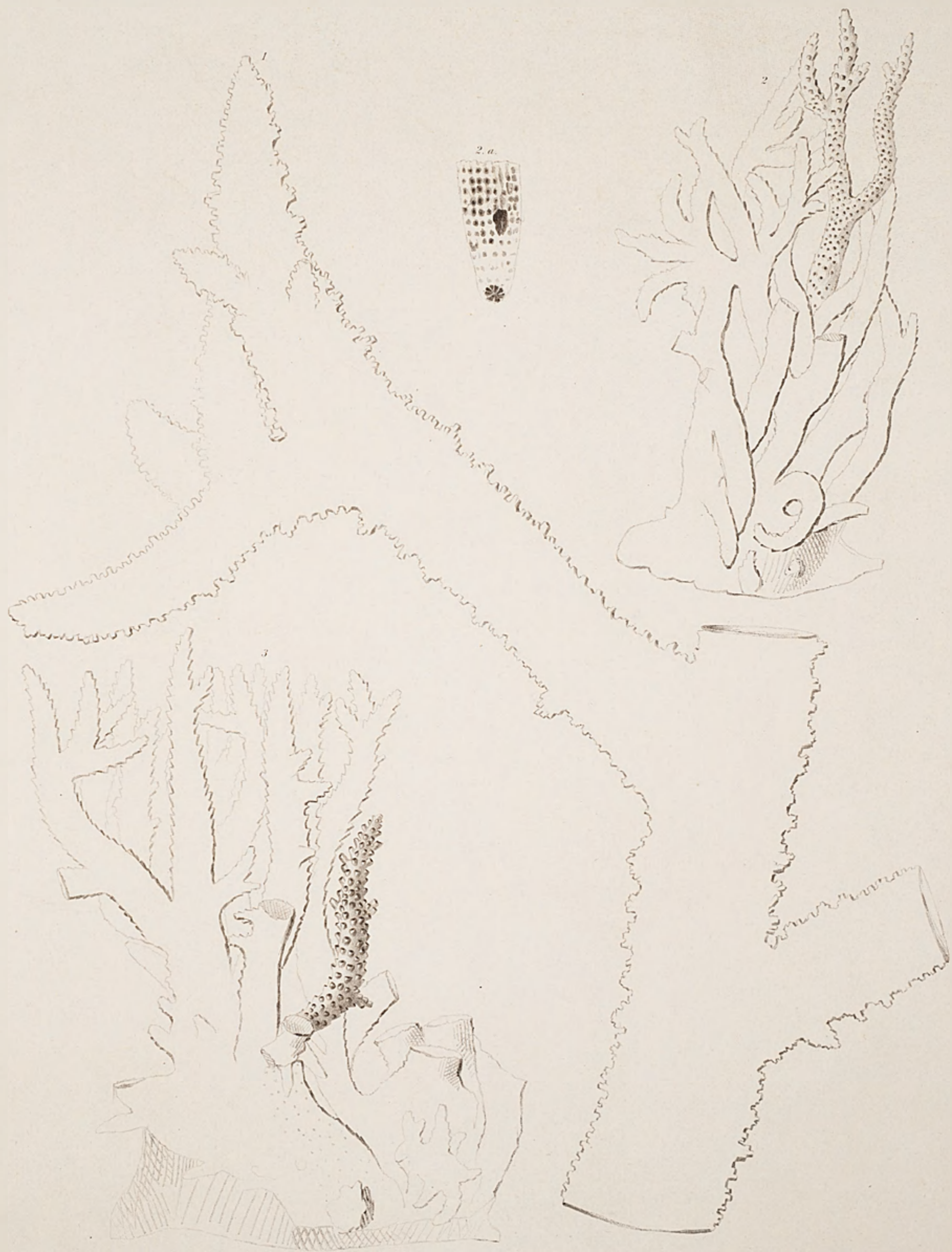
4. *M.* *ramulosa*  
 5. *M.* *lobata*





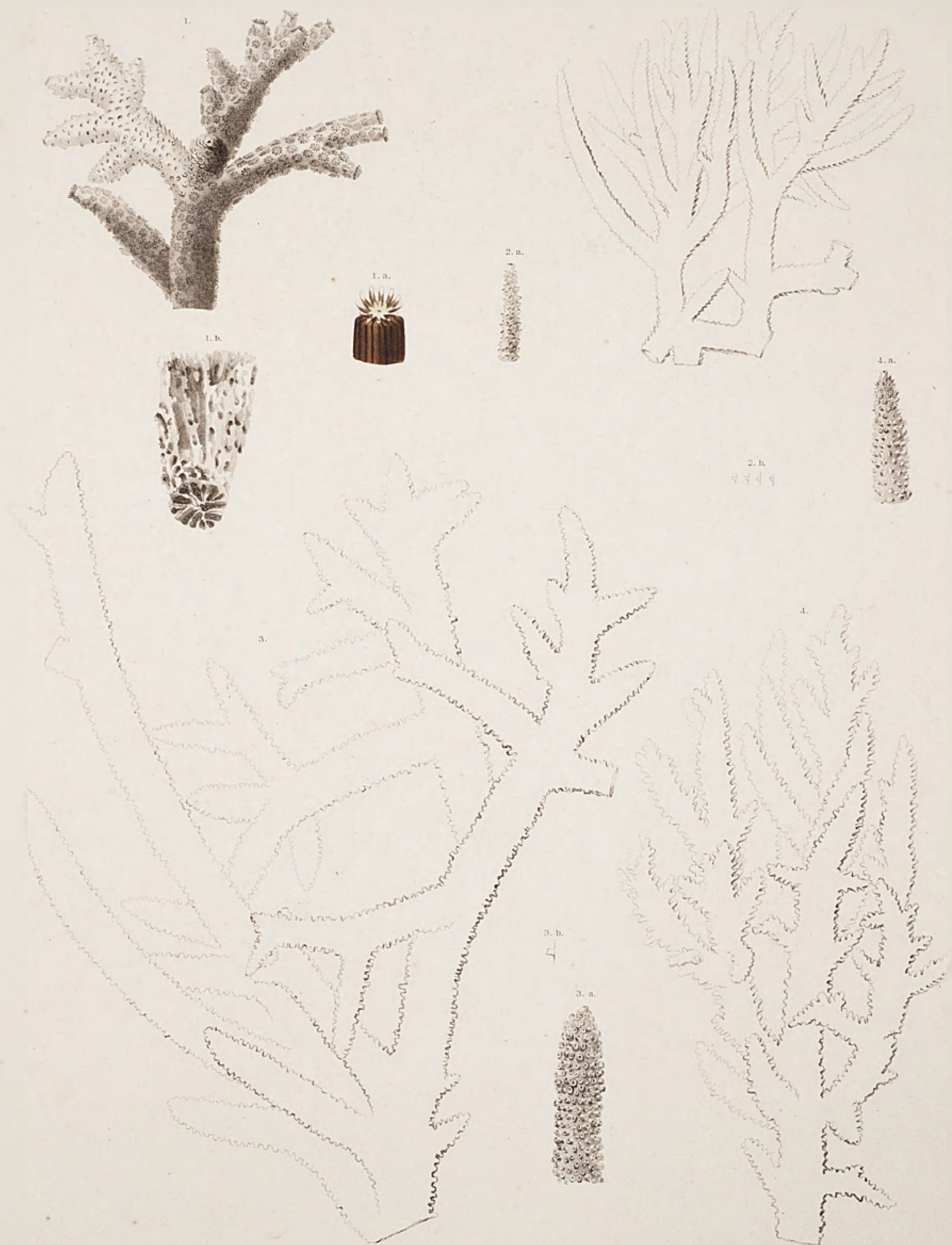
1. *M. oculata*  
2. *M. cardus*  
3. *M. masata*





1. Madrepora florida.  
2 2 a. M. neplenta.  
3. M. turkana.

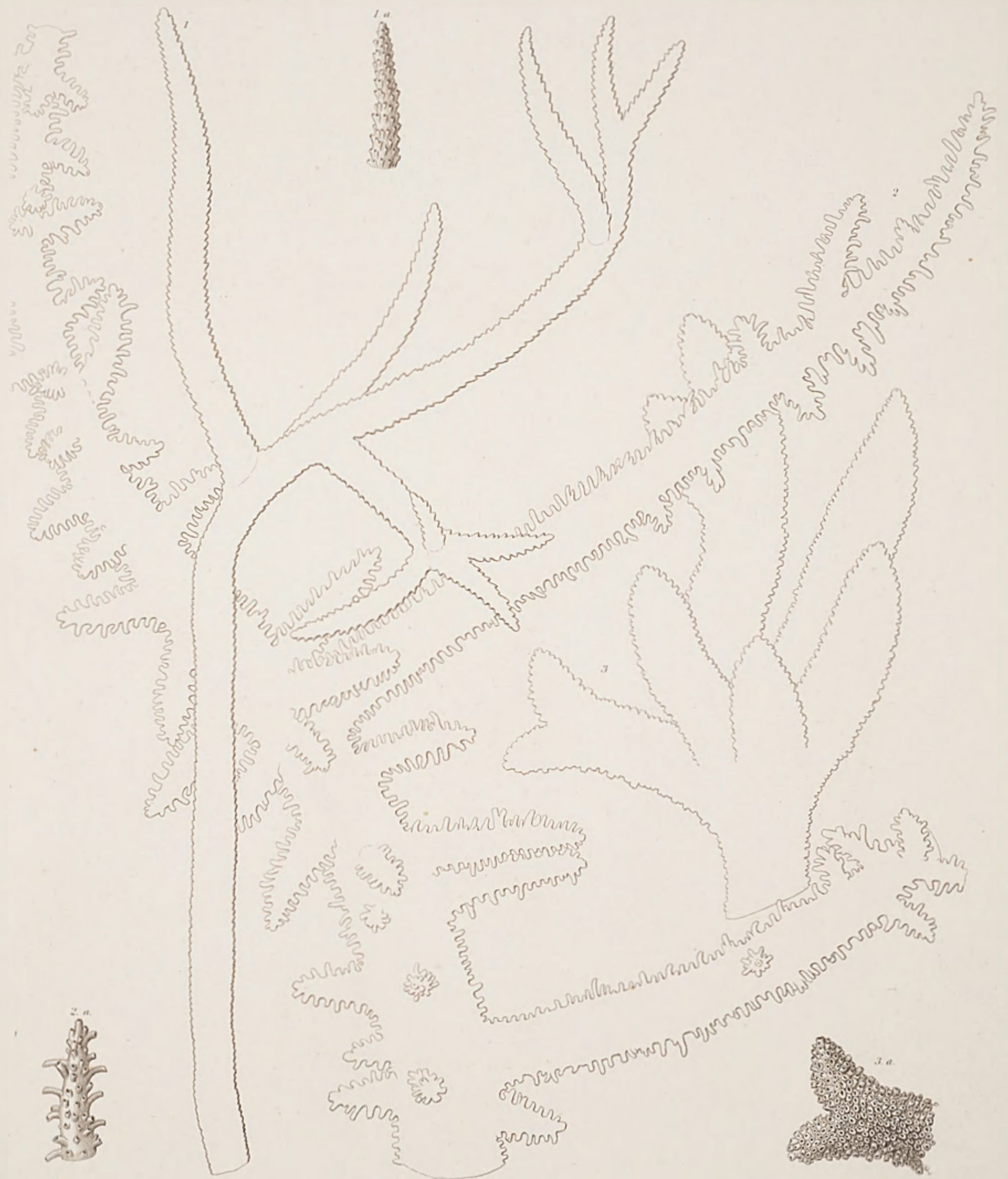




1. 1. a. b. *Maritropica aspera*  
2. 2. a. b. *M. exilis*

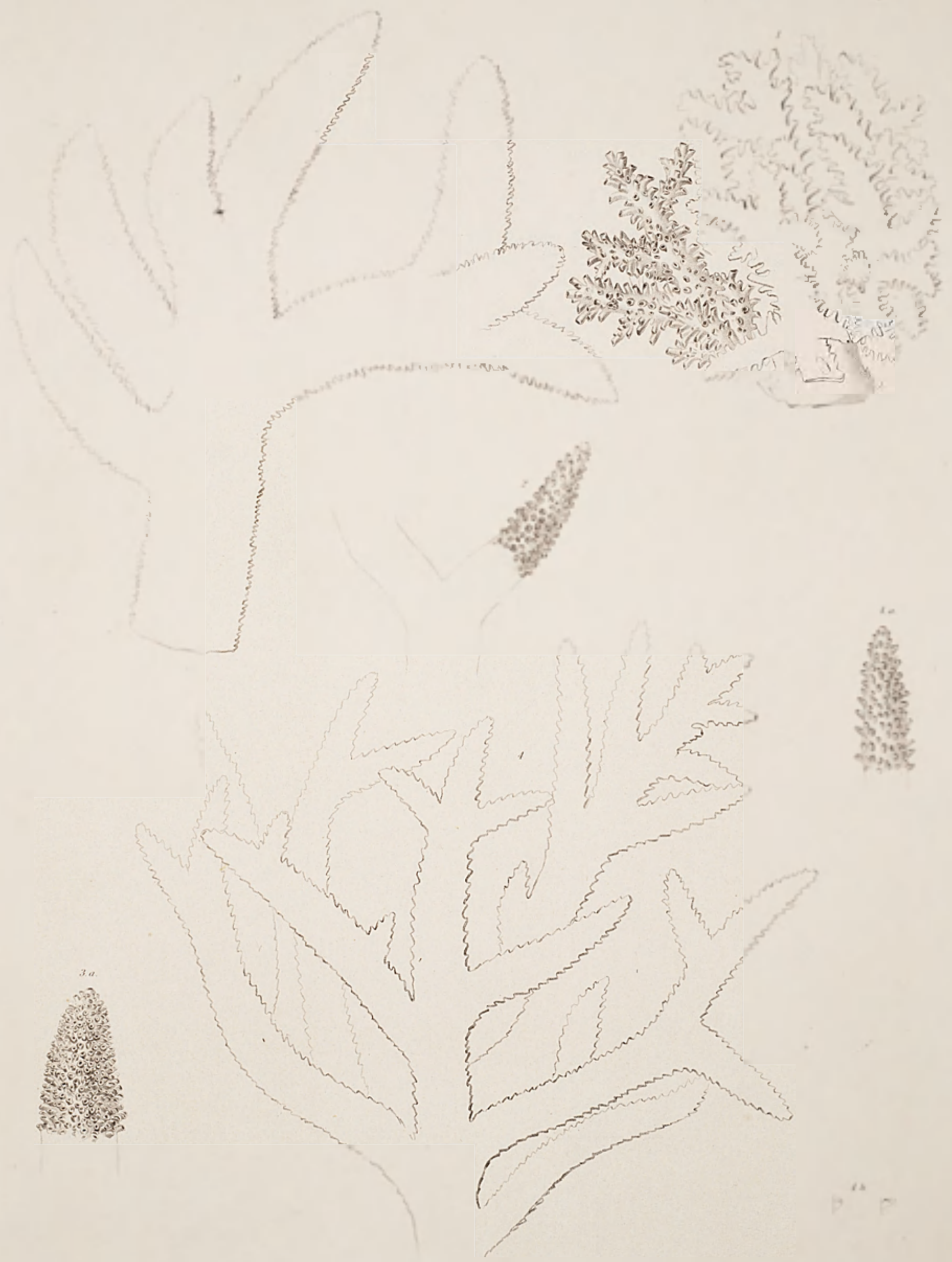
3. 3. a. b. *Maritropica horridula*  
4. 4. a. *M. furcata*





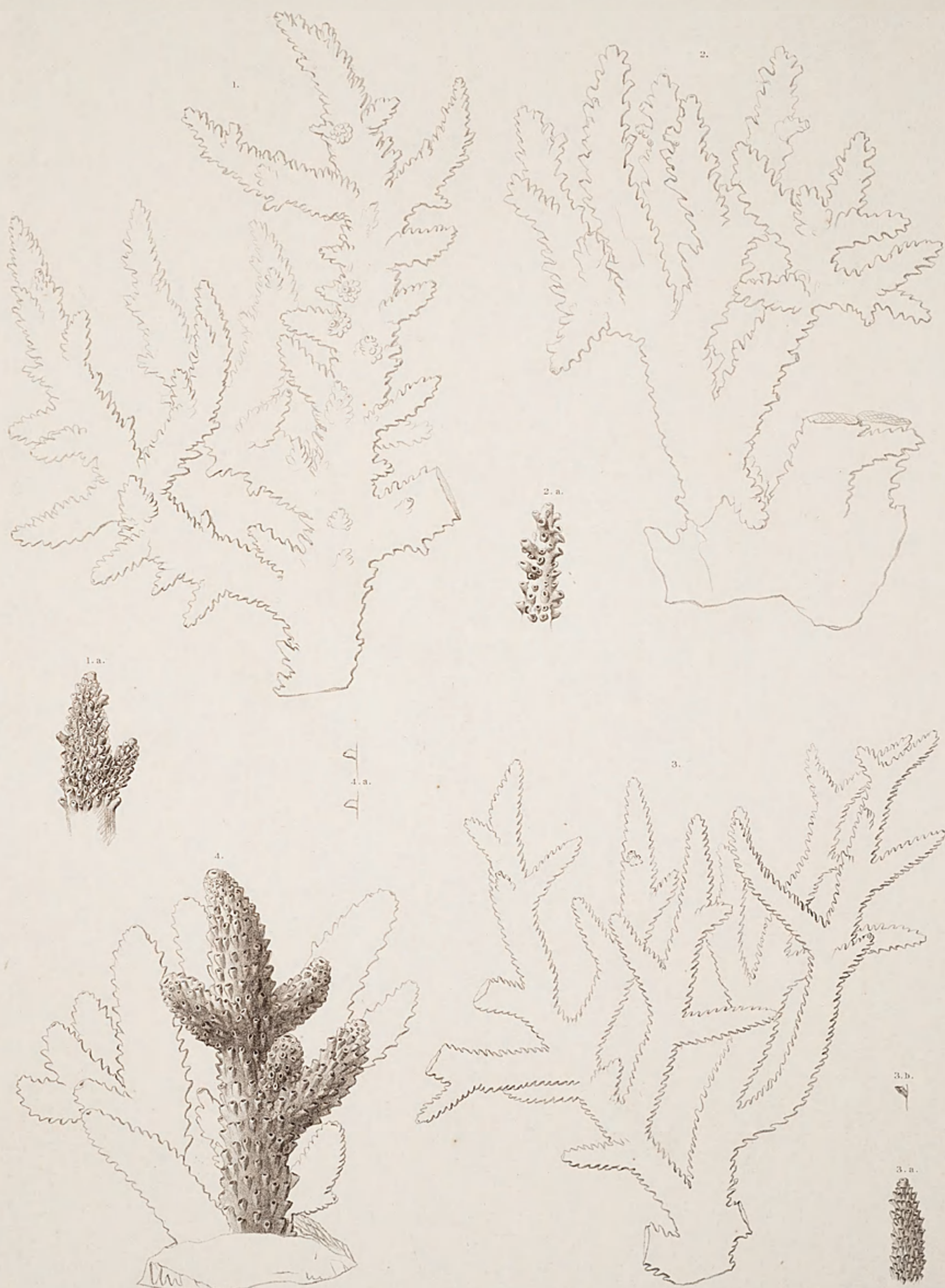
|    |       |           |          |
|----|-------|-----------|----------|
| 1. | 1. a. | Maderpora | virgata. |
| 2. | 2. a. | M         | horrida. |
| 3. | 3. a. | M         | robusta. |





1. *Madrepora lysteri*      a. *Madrepora nobilis*  
2. *M. gracilis*      f. l. a. b. *M. secunda*





1. 1. a. Mollusca obtusimoides.  
2. 2. a. M. divaricata.

3. 3. a. b. Mollusca gracilis.  
4. 4. a. M. humilis.





U. 13. b. *Medusopora cuspidata*.





- |    |      |           |           |
|----|------|-----------|-----------|
| 1. | 1 a. | Madrepora | deformis. |
| 2. | 2 a. | M. _____  | securis.  |
| 5. | 5 a. | M. _____  | labrosa.  |



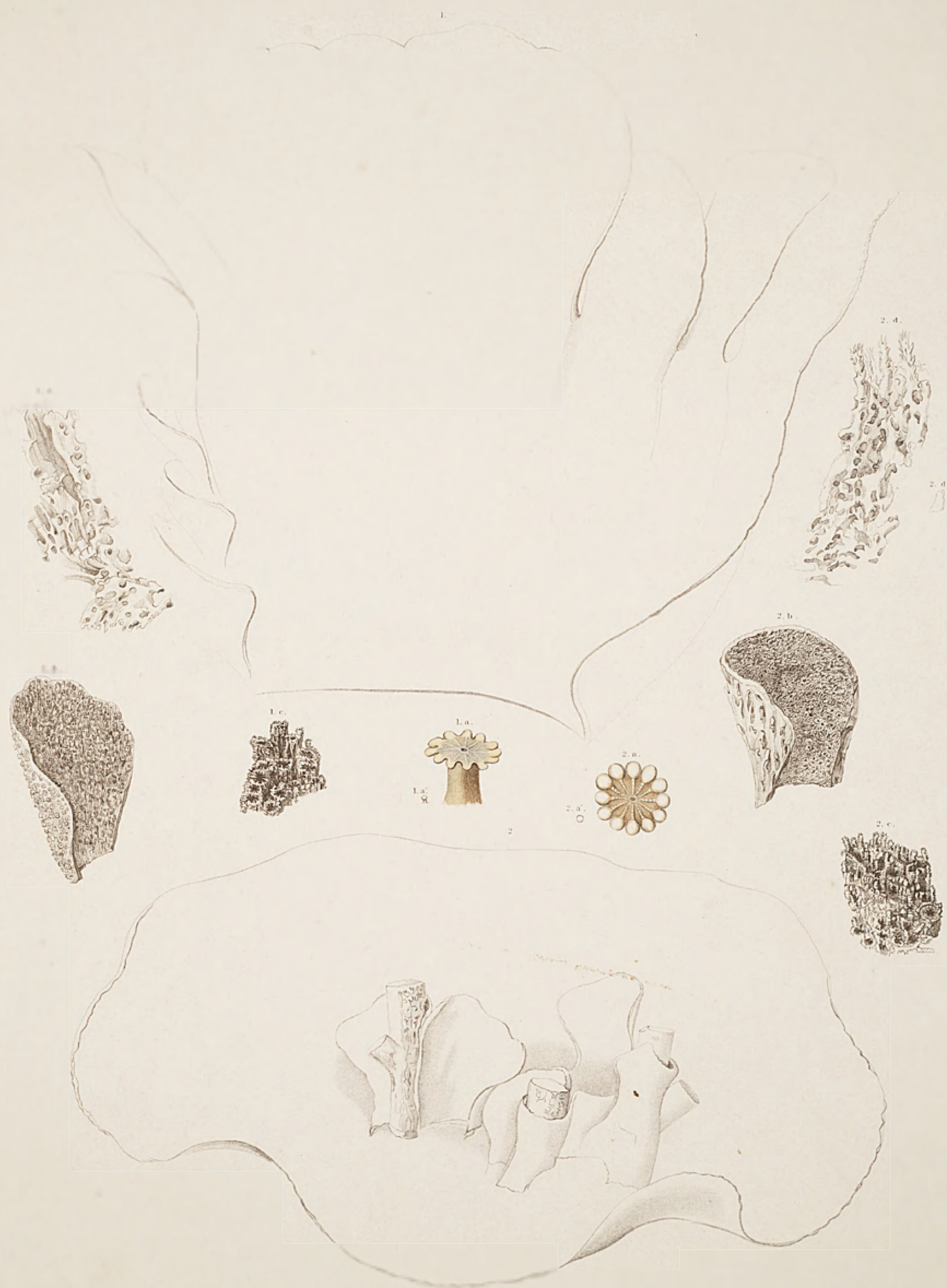


1. *Manopora candelata*.  
2. 2. a. b. c. d. e. f. *Manopora palmata*.

3. *M. M.* 4. *Isopoda*.

5. *Manopora palmata*.  
6. 6. a. b. c. d. e. f. *Manopora squamosa*.





1. 1. a. a. b. c. d. *Mammipora granulata*.  
2. 2. a. a. b. c. d. *M. expansa*.





1, 1 a. *Montipora erosa* all'i.  
2, 2 a. h. c. M. *medusa*.

3, 3 a. c. M. *erosa*.

4, 4 a. h. c. *Montipora scabra*.  
5, 5 a. M. *erilisa*.





1. *Manopora lactosa*.  
2. 2 a, b. *M. tuberculosa*.

3. 3 a. *Xanopora planiuscula*.  
4. *M. capitata*.









1 1 a b c. *Sideropora* *monilax*.  
 2 S. *digitata*? var. *conoleacens*.  
 3 3 a b. *Seriatopora* *lycevis*.  
 4 S. *calendula*.

5 5 a. *Pectopora* *caespitosa*.  
 6 6 a. P. *bullosa*.  
 7 7 a. P. *denticornis*.  
 8 P. *hyacinthina*.



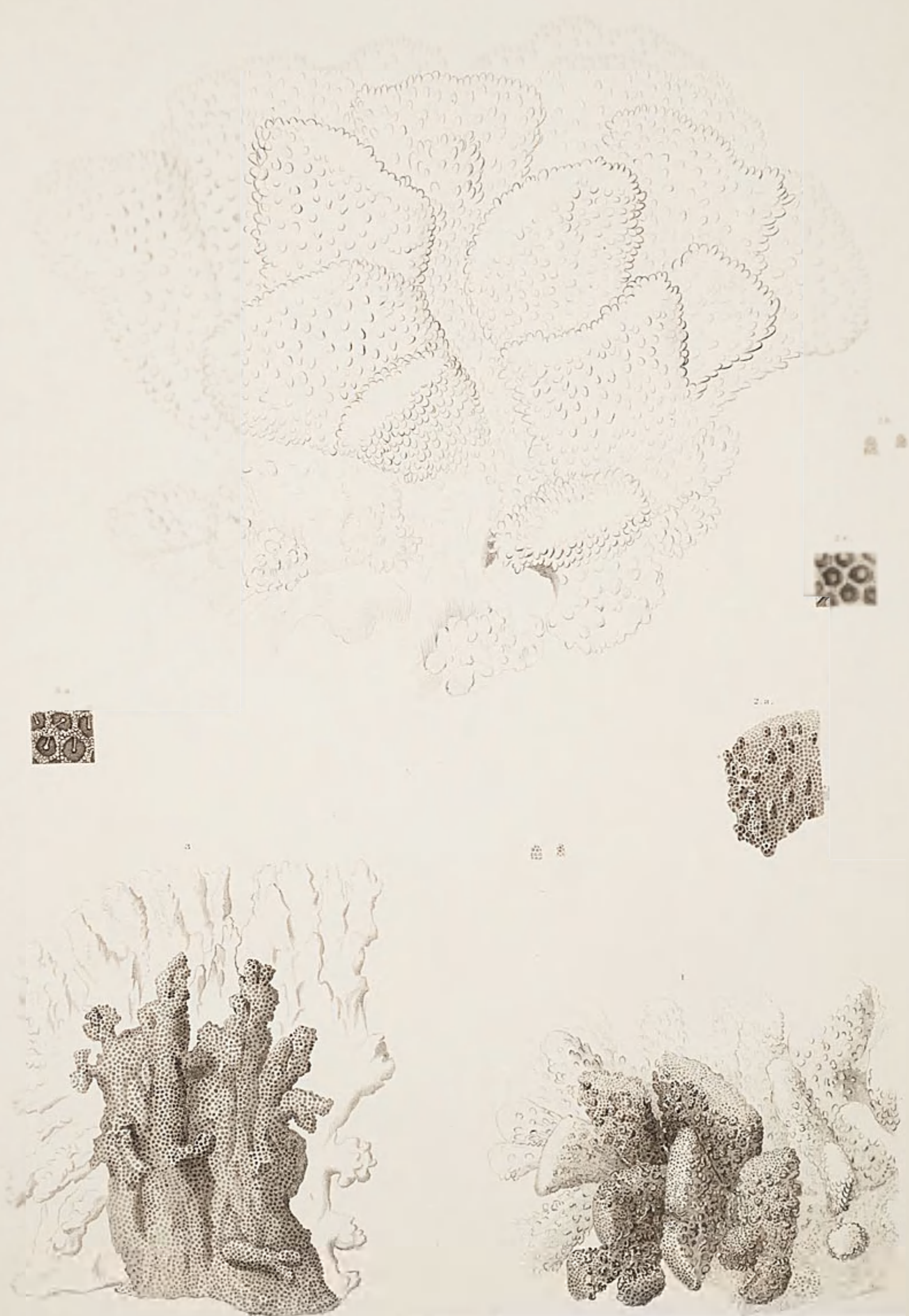


1. *Pocillopora* *ovata*.  
2. 2. a. P. *ligulata*.  
3. 3. a. P. *viridula*.

4. 4. a. b. c. d. *Pocillopora* *plumosa*.

5. 5. a. *Pocillopora* *planifolia*.  
6. 6. a. P. *suberosa*.  
7. 7. a. b. P. *acantharia*.





1. *Thalassia* *Thalassia*
2. *Thalassia* *Thalassia*
3. *Thalassia* *Thalassia*





1. 1. a. b. Delaporia meandrina.  
2. 2. a. b. c. Delaporia meandrina.  
3. 3. a. b. Delaporia meandrina.

4. 4. a. b. c. Delaporia meandrina.  
5. 5. a. b. c. Delaporia meandrina.  
6. 6. a. b. c. Delaporia meandrina.

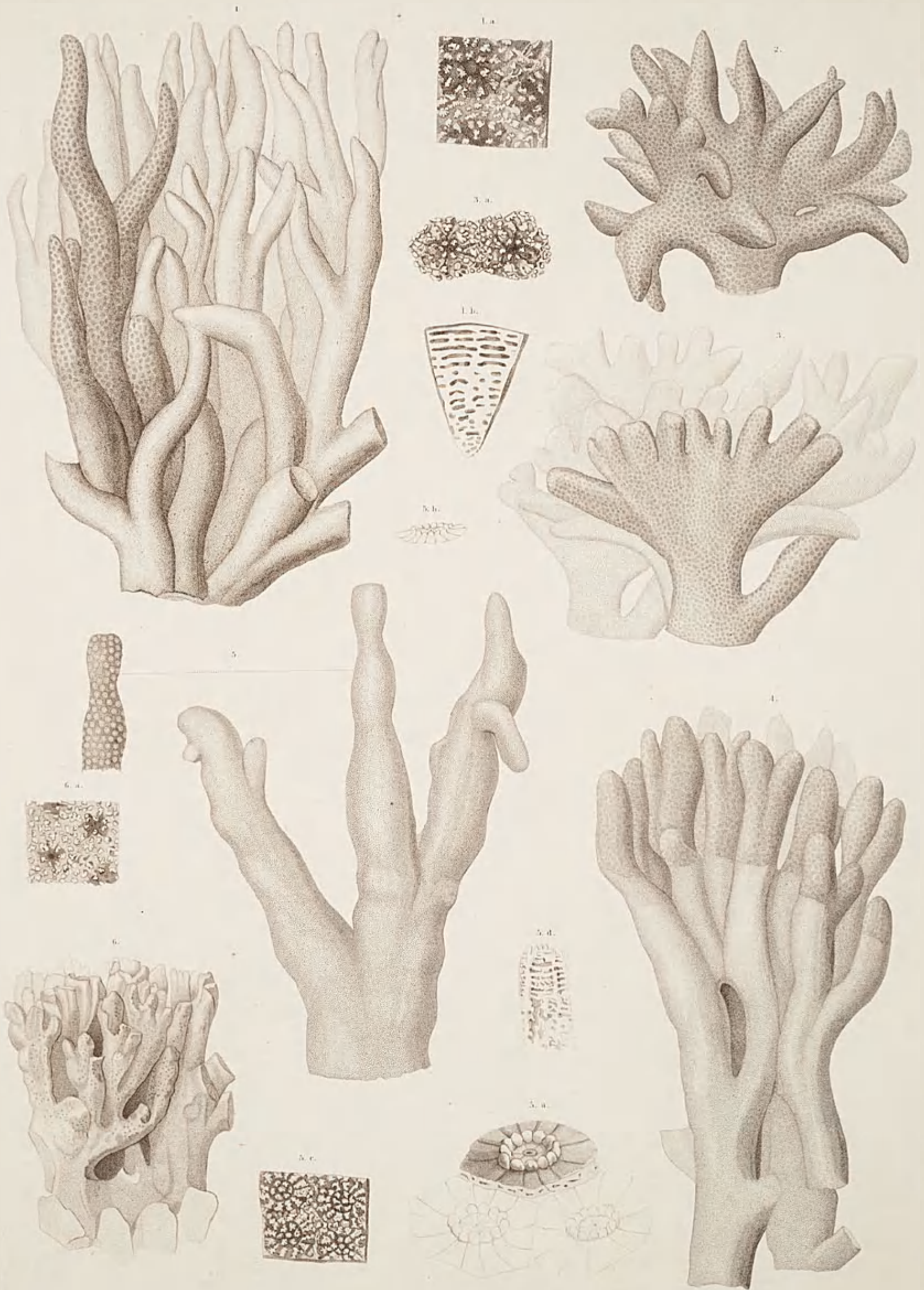




1. *Millepora incrassata*.  
 2. 2. *M. platyphylla*.  
 3. 3. *Porites murdax*.  
 4. *P. murdax* var. *elongata*.

5. 5. *Porites compressa*.  
 6. *P. hexagona*.  
 7. 8. 9. 10. 11. 12. *serotina*.  
 13. *Colletes in speciosa*. *Porites*.

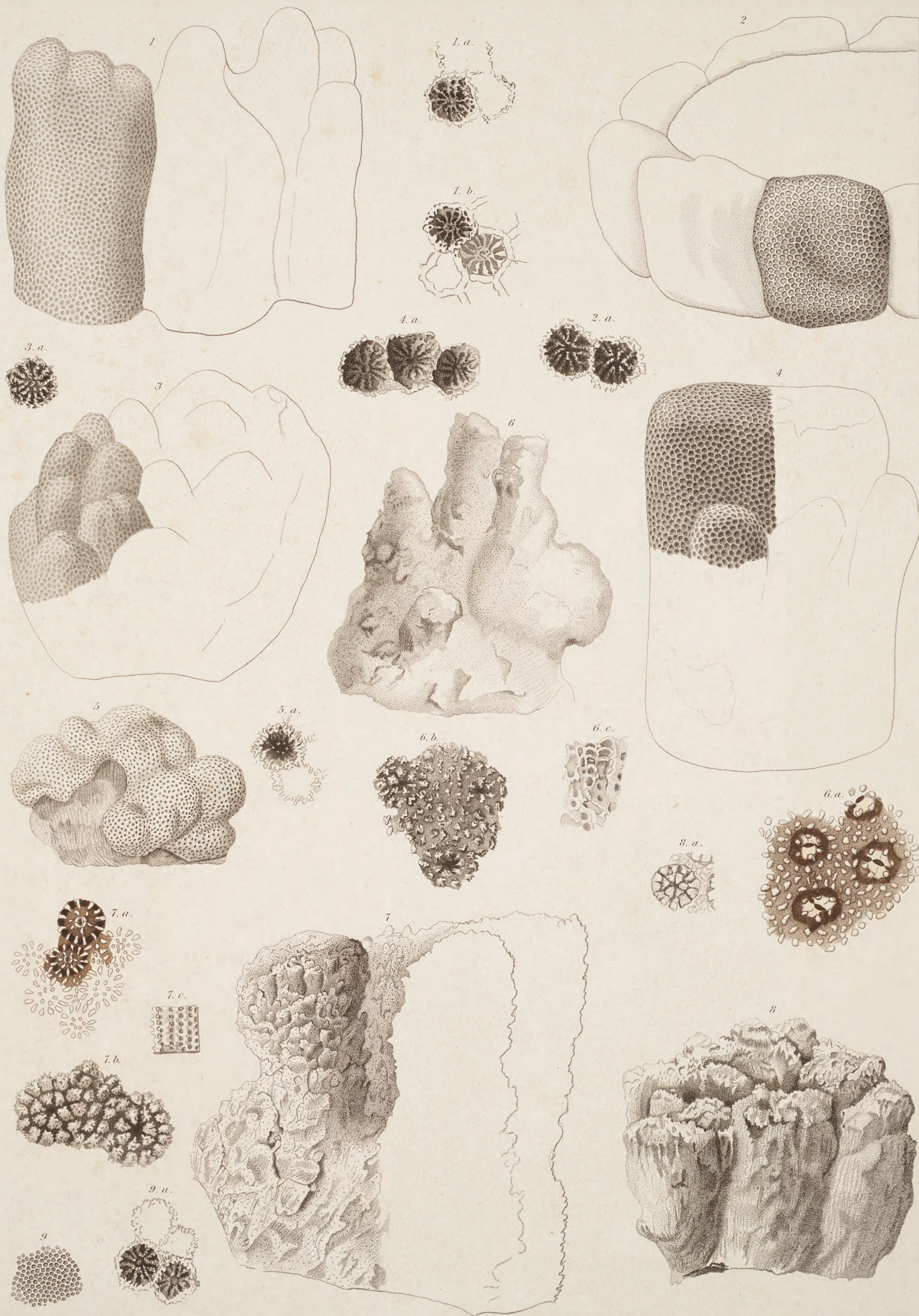




1. 1 a, b. *Portia* *h. oreoceras*.  
2. *P. integratus* var. *minor* (H.).  
3. *P. palmata*.

4. *Portia* *cylindrica*.  
5. 5 a, b, c, d. *P. levis*.  
6. *P. coquina*.





1. 1. a. b. Porites lobata.  
2. 2. a. P. limosa.  
5. 5. a. P. conglomerata

4. 4. a. Porites favosa.  
5. 5. a. P. cribripora.  
6. 6. a. b. c. P. informis.

7. 7. a. b. c. Porites menticulosa.  
8. 8. a. P. erosa.  
9. 9. a. P. fragosa.





1. 1. a, b, c, d. Antipathes argentea.  
2. 2. a, b. A. arbutus.

3. 3. a, b. Gonopora columnaris.  
4. 4. Porites reticulosa.  
5. 5. P. helix.





|              |                                |              |                           |
|--------------|--------------------------------|--------------|---------------------------|
| 1. 1 a. 1 b. | <i>Renilla americana</i> .     | 5. 5 a. 5 b. | <i>Xenia elongata</i> .   |
| 2. 2 a.      | <i>Phyllospongia pinnata</i> . | 6.           | <i>Aplysina flexile</i> . |
| 3. 3 a. 3 b. | <i>Xenia cavata</i> .          | 7. 7 a. 7 b. | <i>Alcyonium</i> .        |
| 4. 4 a. 4 b. | <i>Xenia florida</i> .         | 8.           | <i>Hyadysia latum</i> .   |

Drawn by J. B. Smith

J. B. Smith





1. *Alcyonium gracilimum*.  
2. *A. rigidum*.  
3. *A. murice*.

4. 5. *Alcyonium glaucum*.  
6. 7. *A. latum*.  
8. *A. latum*.









|   |          |              |           |
|---|----------|--------------|-----------|
| 1 | 1. a.    | Carallina    | serotimum |
| 2 | 2. a.    | Gargania     | flexuosa  |
| 7 | 3. a.    | Distichopora | violacea  |
| 4 |          | H            | gracilis  |
| 5 | 5. a. b. |              | glauca    |

|   |          |                   |              |
|---|----------|-------------------|--------------|
| 1 | Is. n.   | <i>Alajovera</i>  | hellen       |
| 2 |          | <i>A</i>          | stuhlfeldian |
| 3 |          | <i>Mesitopora</i> | voetichalen  |
| 4 | U. n. l. | <i>M</i>          | voetichalen  |





1. 1a, 1b, 1c, 1d, 1e. *Polysiphonia echinulata*.  
 2. 2a. *Polysiphonia zosterifolia*.  
 3. *Polysiphonia lomentaria*.  
 4. 4a. *Polysiphonia lomentaria*.  
 5. 5a. *Polysiphonia lomentaria*.  
 6. 6a. *Polysiphonia lomentaria*.

7. 7a, 7b. *Laomedea gracilis*.  
 8. 8a, 8b. *Laomedea gracilis*.  
 9. *Laomedea gracilis*.  
 10. *Laomedea gracilis*.  
 11. 11a, 11b, 11c, 11d. *Laomedea gracilis*.