

very youngest shells (*r-u*), and in these the surface-ornament, though much more delicate than in the adult, is sufficiently obvious; this character becomes increasingly distinct with the age of the animal, until in what appear to be the very oldest examples (*j, v*) the reticulations have become very massive and rounded by constant depositions of calcareous substance, while the intervening fossæ are proportionally deepened. It is not uncommon to find the sculptured ornament of Ostracoda filled up and partly obliterated in old age; possibly this might be the case in still older specimens of *Cythere dictyon* than those which have come under my observation, but at present I have seen no trace of the obliterating process in this species. The tapering form of the valves in the earlier stages of growth is plainly shown in the plate, as also the absence or comparative feebleness of spinous armature. The adult varieties do not call for much remark; the spinous termination of the ventral ridge is seen in figures *f, g*, and *i*, and a marked difference of contour is apparent in the dorsal views (*b, i*); this may perhaps be dependent on growth, or possibly on distinction of race. I long hesitated as to whether or not the forms shown in figures *j* and *v* should be considered to belong to *Cythere dictyon*. The chief points of divergence are the very convex ventral margin, the contracted and strongly-indented dorsum, and (in figure *v*) the marked projection of the infero-posteal angle; I believe, however, that these conditions are mere exaggerations of characters which belong to the species, and which may be found developed with variable degrees of distinctness in different examples.

*Cythere dictyon* occurred in a great number of the Challenger dredgings,—mostly in those from deep water,—in some of which it was the most abundant species. The following is a list of the localities :—

Off Culebra Island, West Indies, . . . . .	390 fathoms,	Station 24
Lat. 35° 35' N., long. 50° 27' W., . . . . .	2750 "	" 64
" 38° 30' N., " 31° 14' W., . . . . .	1000 "	" 73
" 38° 25' N., " 35° 50' W., . . . . .	1675 "	" 70
" 38° 37' N., " 28° 30' W., . . . . .	450 "	" 75
" 37° 34' N., " 25° 13' W., . . . . .	1000 "	" 76
" 37° 24' N., " 25° 13' W., . . . . .	1000 "	" 78
" 8° 37' S., " 34° 28' W., . . . . .	675 "	" 120
" 9° 5' S., " 34° 49' W., . . . . .	350 "	" 122
" 46° 46' S., " 45° 31' E., . . . . .	1375 "	" 146
" 52° 4' S., " 71° 22' E., . . . . .	150 "	" 150
Off Sydney, New South Wales, . . . . .	410 "	" 164 <sup>a</sup>
Lat. 5° 26' S., long. 133° 19' E., . . . . .	580 "	" 191 <sup>a</sup>
Humboldt Bay, Papua, . . . . .	37 "	"
Lat. 2° 33' S., long. 144° 4' E., . . . . .	1070 "	" 218
" 7° 45' N., " 144° 20' E., . . . . .	1850 "	" 224
" 36° 10' N., " 178° 0' S., . . . . .	2050 "	" 246
" 18° 40' S., " 149° 52' W., . . . . .	1940 "	" 280
" 38° 6' S., " 88° 2' W., . . . . .	1825 "	" 296
" 33° 42' S., " 78° 18' W., . . . . .	1375 "	" 300