








## Supplementary tables



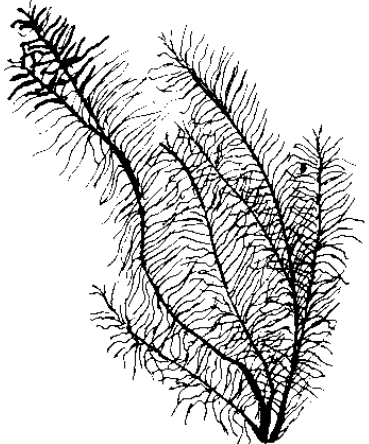
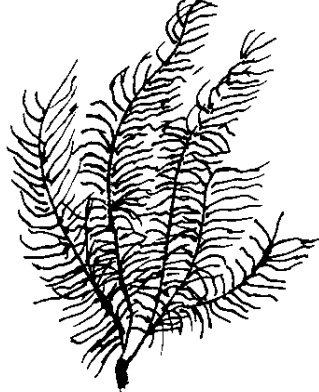
Table S1. Comparison among models that include and exclude species and size as factors. Best model in black and italics.

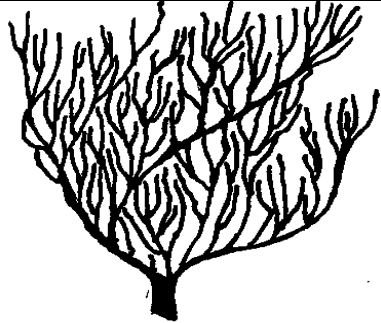

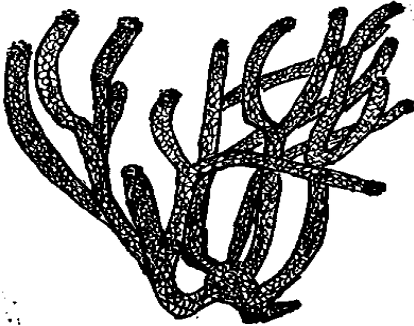
Model	df	AIC	BIC	logLik	Test	L.Ratio	p-value
Full	289	1578.3	3154.2	-500.1			
Size*Exposure*Depth	19	1012.8	1119.1	-487.4	1 vs 2	25.5	1
Species*Exposure*Depth	145	1213.8	2016.1	-461.9	2 vs 3	51.0	1
Species*Size *Depth	97	1070.1	1609.3	-438.0	3 vs 4	47.7	0.4832
Species* Size*Exposure	97	1118.4	1657.5	-462.2			
Exposure*Depth	10	985.5	1041.6	-482.8	5 vs 6	41.2	1
Species*Size	33	888.6	1073.1	-411.3	6 vs 7	143.0	<.0001
<b><i>Species + Size (no interaction)</i></b>	<b><i>18</i></b>	<b><i>818.2</i></b>	<b><i>919.0</i></b>	<b><i>-391.1</i></b>	<b><i>7 vs 8</i></b>	<b><i>40.4</i></b>	<b><i>0.0004</i></b>

Table S2. Description of the species sampled with mean thickness values, general characteristics of their colony growth and an illustration with the colony shape. Illustrations while maintain relative proportions among species are not drawn to scale.

Specie	Colony shape	Mean branch thickness (mm)	SD (mm)	Illustration
<i>Briareum asbestinum</i> (Br)	Erect vertical and cylindrical (can also be encrusting)	12.3	1.6	
<i>Eunicea calyculata</i> (Ecal)	Dichotomous branching in all directions	12.3	3.5	

<i>Eunicea lacinata</i> (Elac)	Fingerlike colony of few thick long branches arising from near the base in all directions	12.6	1.8	
<i>Eunicea laxispica</i> (Elax)	Candelabrum with few branches chiefly in one plane	3.9	1.0	
<i>Eunicea succinea</i> (Esuc)	Candelabrum or bushy mainly in one plane with branches arising near colony base	6.6	1.7	
<i>Eunicea tourneforti</i> (Et)	Candelabrum in single plane with long thick branches	9.2	1.5	
<i>Gorgonia ventalina</i> (Gv)	Sea fan shape. Anastomosing branch structure with small interconnected branchlets (net like)	1.8	1.2	

<i>Muricea elongata</i> (Me)	Tall, bushy; branching is lateral in lower part of colony	2.8	0.2	
<i>Muriceopsis flavida</i> (Mflv)	Tall, plumose, with several long main branches and sometimes with secondary plumes arising from main branches	2.5	0.9	
<i>Antillogorgia acerosa</i> (Aac)	Pinnate, plumose; often resembles ostrich plumes	2.2	0.5	
<i>Antillogorgia Americana</i> (Aam)	Pinnate, plumose	2.9	0.4	

<i>Eunicea flexuosa</i> (Eflx)	Bushy, candelabrum, dichotomous branching in one plane	4.0	0.6	
<i>Plexaura homomalla</i> (Ph)	Bushy but branching in one plane	3.4	1.0	
<i>Plexaurella</i> spp. (Plla)	Bushy, branching in several planes	12.3	2.2	
<i>Pseudoplexaura</i> spp. (Psx)	Branching, tree-like colonies	5.6	2.0	