

## Supplementary Material 3

**List of seamount attributes and units of measured used to describe individual seamount geologic, ecologic and oceanographic characteristics.**

Attributes	Units of measure/Categories		
<b>Geology</b>	1. Age	Million years	
	2. Basin depth	Meters below sea surface	
	3. Depth of peak	Meters below sea surface	
	4. Elongation	Length / width ratio	
	5. Height of peak	Meters from base of seamount to top of summit	
	6. Hydrothermally active	1/0 (yes/no)	
	7. Irregularity	SBN classification ( <a href="http://earthref.org/SBN/">http://earthref.org/SBN/</a> )	
	8. Mineral deposits	1/0 (yes/no)	
	9. Proximity to neighbor sm.	Km	
	10. Proximity to shelf	Km	
	11. Slope of seamount	Degrees, average value	
	12. Substrate type	1: Rocky, 1.25: Mostly rocky, 1.5: Mixed , 1.75: Mostly soft, 2: Soft	
	13. Summit shape	1: Conical, 2: Guyot, 3: Caldeira, 4: Irregular, 5: Other (0.5: w. pinnacles)	
	14. Volume	km <sup>3</sup>	
<b>Oceano.</b>	15. Taylor cap or other retention mechanisms	1/0 (yes/no)	
	16. Aggregating deep sea fish	If compared with habitats similar to seamounts - increased, decreased, no significant difference; if not - presence, absence	
	17. Air-breathing visitors	As in 16	
	18. Cephalopods	As in 16	
	19. Chemosynthetic community	1/0 (yes/no)	
	20. Corals	As in 16	
	21. Demersal fish	As in 16	
	22. Demersal invertebrates	As in 16	
	23. Endemism	1: No global value of endemism, but single or few taxa described as endemic, 2: Low=<20%, 3: Medium=[20-40%], 4: High=>40%	
	<b>Ecology</b>	24. Macrophytes present	As in 16
		25. Nutrient upwelling occurs	1/0 (yes/no)
		26. Organic matter	Increased, decreased, no significant difference
		27. Other visiting pelagics	If compared with open ocean or other habitats - increased, decreased, no significant difference; if not - Presence/absence
		28. Phytoplankton production	Increased, decreased, no significant difference
		29. Sponge meadows	As in 16
		30. Topographic blockage	1/0 (yes/no)
		31. Visiting large pelagics	As in 27
		32. Zooplankton production/abundances	Increased, decreased, no significant difference