

**TAPHONOMIC CHARACTERIZATION OF BIVALVE CONCENTRATIONS FROM THE
CAPE MELVILLE FORMATION (EARLY MIOCENE), MOBY DICK GROUP,
KING GEORGE ISLAND, WEST ANTARCTICA.**

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Four geological sections from Cape Melville Formation were analyzed taphonomically:

1. Penguin Rookery: represented by eight taxa (n=227) shared in two beds: a) composed by *Ennucula musculosa* (n=91, 66%), gastropods and indeterminate bivalves. *E. musculosa* is chaotically distributed (Perpendicular=37%, Oblique=31%, Concordant=30%), closed articulated (n=86, 95%) and few fragmented (n=76, 84%); b) composed by *Yoldia peninsularis* (n=76, 84%), gastropods and indeterminate bivalves. *Y. peninsularis* is preferred concordant accordingly to the bed (n=43,57%), closed articulated (n=52, 69%) e few fragmented (n=64, 84%).

2. Hard Ground: represented by seven taxa (n=211) dominated by *Ennucula frigida* (n=130, 62%), gastropods, coral and indeterminate bivalves. *E. frigida* is chaotically distributed (Perp.=30%, Obl.=36%; Conc=39%), closed articulated (n=117, 90%) and few fragmented (n=94, 72%).

3. Chamine: represented by seven taxa (n=69); *Neilo (Neilo) rongelii* (n=22, 32%), *Panopea (Panopea) cf. P. regularis* (n=10, 14%), indeterminate bivalves, gastropods and crustaceans. *N. (N.) rongelii* is preferred concordant (n=11, 50%), disarticulated (n=16, 73%) and with no fragmentation; *Panopea. (P.) cf. P. regularis* is preferred perpendicular (n=8, 80%), closed articulated (n=9, 90%), without fragmentation.

4. Lava Crag: represented by four taxa (n=40); *Neilo (Neilo) rongelii* (n=17, 43%), indeterminate bivalves (n=18, 45%) and crabs. *N. (N.) rongelii* is preferred concordant (n=12, 71%), disarticulated and without fragmentation.

Táxon	Total		PRS				HGS		CS		LCS	
	n	%	Camada 2		Camada 3		n	%	n	%	n	%
<i>Ennucula frigida</i>	130	24	0	0	0	0	130	62	0	0	0	0
<i>Yoldia peninsularis</i>	100	18	14	11	76	84	9	4	1	2	0	0
<i>Ennucula musculosa</i>	91	17	91	66	0	0	0	0	0	0	0	0
Bivalves indeterminados	83	15	21	16	5	6	22	10	17	25	18	45
<i>Neilo (Neilo) rongelii</i>	39	7	0	0	0	0	0	0	22	32	17	43
Corais	29	5	1	1	0	0	25	12	3	4	0	0
Caranguejos	21	4	0	0	0	0	4	2	14	20	3	8
Gastropodes	20	4	3	2	8	9	7	3	2	3	0	0
CC	17	3	3	2	0	0	14	7	0	0	0	0
<i>Panopea (Panopea) cf. P. regularis</i>	10	2	0	0	0	0	0	0	10	14	0	0
Tubo	5	1	2	1	1	1	0	0	0	0	2	4
Braquiópodes	2	0	2	1	0	0	0	0	0	0	0	0
TOTAL	547	100	137	100	90	100	211	100	69	100	40	100

Absolute and relative abundances of the taxa from Cape Melville Formation