

SUPPLEMENTAL DATA 2

FOSSIL SIRENIA OF THE WEST ATLANTIC AND CARIBBEAN REGION. IX.

*METAXYTHERIUM ALBIFONTANUM*, SP. NOV.

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APPENDIX 2. Character-taxon matrix used for phylogenetic analysis. The list includes 2 outgroup and 36 ingroup taxa.

*Phosphatherium escuilliei*

0	0	0	0	0	0	1	0	?	0	0	?	?	?
0	0	0	0	0	0	0	?	0	0	0	0	?	?
0	0	?	0	?	0	0	0	0	0	?	0	0	0
0	0	0	0	0	0	0	0	0	0	?	0	0	0
0	0	0	0	0	0	0	1	0	0	0	0	0	

*Cornwallius sookensis*

0	0	0	0	0	0	0	0	0	0	0	?	0	0
0	0	0	0	0	0	0	0	1	0	0	?	1	0
0	0	0	?	0	0	0	0	1	0	1	0	0	0
?	0	0	0	0	0	0	0	?	0	0	0	0	?
0	0	0	?	0	1	1	1	0	0	0	0	0	

*Prorastomus sirenoides*

1	0	0	1	1	1	1	0	0	?	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	?	0	0	0	0	0
0	1	0	0	0	1	0	0	0	0	0	0	0	?
0	0	0	?	0	0	0	0	0	0	0	1	0	

*Ashokia antiqua*

?	0	0	1	1	?	1	?	0	0	0	1	0	0
0	0	0	0	0	0	1	0	0	2	0	0	1	1
0	0	0	2	0	0	0	0	0	0	1	1	?	?
0	0	0	1	1	1	?	?	?	?	?	?	?	?
?	?	?	?	?	?	0	?	?	0	0	1	?	

*Miosiren kocki*

1	0	0	1	1	1	0	1	0	1	0	1	0	0
0	1	0	0	0	0	1	1	0	2	0	0	2	1
1	0	0	2	0	2	0	0	0	0	2	0	0	0
1	1	1	1	1	1	?	?	?	?	?	?	?	1
0	2	0	0	1	2	1	1	2	0	0	1	1	

*Eotheroides aegyptiacum*

?	0	0	1	1	1	0	?	0	0	0	1	?	0
0	0	0	0	0	0	1	0	0	1	0	0	0	1
1	1	0	0	0	?	0	?	?	?	0	0	0	?
1	1	1	?	1	1	1	1	1	1	1	0	0	?
?	?	?	?	0	1	0	1	0	0	0	1	1	

*Halitherium taulannense*

2	0	0	1	1	1	?	1	0	0	0	1	0	0
0	0	0	0	0	0	1	0	0	2	0	0	0	1
1	1	0	1	0	0	0	0	0	0	0	1	1	0
1	1	1	1	1	1	1	0	2	1	1	0	0	0
0	1	0	0	0	1	0	1	0	0	0	1	1	

*Halitherium schinzii*

2	0	0	1	1	1	0	1	0	0	0	1	0	0
0	0	0	0	0	0	1	0	0	2	0	0	0	1

1	1	0	1	0	1	?	0	0	0	?	1	1	0
1	1	1	1	1	1	1	0	2	1	1	0	1	0
0	1	0	0	1	2	1	1	0	0	0	1	1	

*Halitherium christolii*

?	?	?	1	?	?	0	?	?	0	?	1	?	?
?	0	0	0	0	0	1	?	0	?	?	?	0	1
1	1	0	1	0	?	?	?	?	?	?	?	?	?
1	1	1	1	?	1	3	1	2	1	1	1	1	?
?	?	?	?	1	2	1	1	0	0	0	1	?	

USNM 542417

2	0	0	1	1	1	0	?	0	0	0	1	0	0
1	0	0	0	0	0	1	0	0	2	0	0	0	1
1	1	0	1	0	1	0	0	0	0	1	1	1	0
1	1	1	1	1	1	3	1	2	1	1	1	1	?
0	0	0	?	1	2	2	1	0	0	0	1	2	

*Metaxytherium krahuletzki*

2	0	0	1	1	1	1	1	0	0	0	1	0	0
1	1	0	0	0	0	1	1	0	2	0	0	0	1
1	1	0	1	0	1	0	0	0	0	1	1	1	0
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Metaxytherium medium*

2	0	0	1	1	1	1	1	0	0	0	1	0	0
1	1	0	0	0	0	1	1	1	2	0	0	0	1
1	1	0	1	0	2	0	0	0	0	1	1	1	0
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Metaxytherium serresii*

2	0	0	1	1	1	1	1	0	0	0	1	0	0
1	1	0	0	0	0	1	1	1	3	0	0	0	1
1	1	0	1	0	2	0	0	0	0	1	1	1	1
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	1	0	0	1	2	2	1	0	0	0	1	2	

*Metaxytherium subapenninum*

2	0	0	1	1	1	1	2	0	0	0	1	0	0
1	1	0	0	0	0	1	1	1	3	0	0	0	1
1	1	0	1	0	2	1	0	0	0	1	1	1	1
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	2	0	0	1	2	2	1	0	0	0	1	2	

*Metaxytherium crataegense*

2	0	0	1	1	1	1	1	0	0	0	1	0	0
1	1	0	0	0	0	1	1	1	2	0	0	0	1
1	1	0	1	0	2	0	0	0	0	1	1	1	0
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Metaxytherium floridanum*

2	0	0	1	1	1	1	1	0	0	0	1	0	0
1	1	0	0	0	0	1	1	1	2	0	0	0	1
1	1	0	1	0	2	0	0	0	0	1	1	1	0
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Metaxytherium arctodites*

2	0	0	1	1	1	0	1	0	0	0	1	1	0
1	1	0	0	0	0	1	1	1	2	0	0	0	1

1	1	0	1	0	2	0	0	0	0	1	1	2	0
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Dusisiren jordani*

2	0	0	1	1	1	1	1	0	0	0	1	1	0
1	1	0	0	0	0	1	1	1	3	1	0	0	1
1	2	0	1	0	2	1	0	0	0	2	0	1	0
1	1	1	1	1	1	2	1	2	1	1	0	1	?
1	0	?	?	1	2	2	1	0	0	0	1	2	

*Hydrodamalis cuestae*

2	0	0	1	1	1	1	2	1	0	0	1	2	1
1	1	0	0	0	0	1	1	1	3	1	0	0	2
1	2	0	1	0	2	1	0	0	0	2	1	1	0
1	1	1	1	1	1	2	1	2	1	2	0	1	?
1	0	?	?	1	2	2	1	?	0	1	1	2	

*Metaxytherium albifontanum* sp. nov.

2	0	0	1	1	1	?	1	0	0	0	1	0	0
1	1	0	0	0	0	1	1	1	2	0	0	0	1
1	1	0	1	0	1	0	0	0	0	1	1	1	0
1	1	1	1	1	1	3	?	2	1	1	1	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Caribosiren turneri*

2	0	0	1	1	1	0	1	0	0	0	1	0	0
1	0	0	0	0	0	1	?	?	?	?	?	0	1
1	1	0	1	0	?	0	0	0	?	1	1	1	0
1	1	1	1	1	1	?	?	?	?	?	?	?	?
1	0	?	?	1	2	2	1	0	0	0	1	2	

*Crenatosiren olseni*

2	0	0	1	1	1	0	1	0	0	0	1	0	0
1	1	1	0	0	0	1	0	0	2	0	0	0	1
1	1	0	1	0	1	0	0	0	1	1	1	?	0
1	1	1	1	1	1	3	1	2	1	1	1	1	0
0	1	0	0	1	2	2	1	0	0	0	1	2	

*Nanosiren sanchezi*

2	0	1	1	?	1	0	?	1	0	0	1	0	0
1	?	1	1	?	1	1	1	1	2	0	1	0	1

1	3	0	1	0	1	?	0	0	1	?	?	?	0
?	?	?	?	2	1	?	?	?	?	?	?	1	0
0	0	0	0	1	2	2	1	0	0	0	1	2	

*Nanosiren garciae*

2	?	?	1	?	1	0	?	1	0	0	1	0	0
1	?	1	1	?	1	1	1	1	2	0	1	0	1
1	3	0	1	0	1	?	0	0	1	?	?	?	0
1	2	1	1	2	1	3	1	2	1	1	1	?	?
0	0	?	?	1	2	2	1	?	0	0	1	2	

*Dugong dugon*

2	0	0	1	1	1	0	2	1	1	0	1	0	0
1	1	2	2	1	1	1	1	1	2	0	0	0	1
1	3	0	1	0	2	1	1	0	1	1	2	1	0
1	1	1	1	1	1	3	1	2	1	1	1	1	1
0	2	0	1	1	2	2	1	0	0	0	1	2	

USNM 540765

2	1	0	1	1	1	0	1	0	0	0	1	0	0
1	0	1	2	0	0	1	0	0	2	0	0	0	1
1	1	0	1	0	2	0	1	0	0	1	2	1	0
1	1	1	1	1	1	?	?	?	?	?	?	?	1
0	2	2	1	1	2	2	1	0	0	0	1	2	

*Bhartisiren indica*

2	1	0	1	1	1	0	1	0	0	0	1	0	0
1	3	1	0	1	0	1	0	0	2	0	0	0	1
1	1	0	1	0	2	0	1	1	1	1	2	2	0
1	1	1	1	?	1	?	?	2	1	1	?	?	?
0	2	0	?	1	2	2	1	0	0	0	1	2	



*Bharatisiren kachchhensis*

2	1	0	1	1	2	0	1	0	0	1	1	0	0
1	0	1	2	1	0	1	1	0	2	0	?	0	1
1	?	0	1	0	2	0	1	0	1	1	2	2	0
1	1	1	1	?	1	?	?	?	?	?	?	?	1
0	2	0	?	1	2	2	1	0	0	0	1	2	

*Domningia sodhae*

2	2	0	1	1	1	0	1	0	0	0	1	0	0
1	3	1	2	0	0	1	0	0	2	0	?	0	1
1	1	1	1	0	2	0	1	0	1	1	1	2	0
1	2	1	1	?	1	3	1	2	1	?	1	1	?
0	2	1	?	1	2	2	1	0	0	0	1	2	

*Kutchisiren cylindrica*

2	1	0	1	1	1	0	1	0	0	0	1	0	0
1	1	1	2	0	0	1	1	0	?	?	0	?	1
1	1	?	1	0	2	0	1	?	1	1	0	2	0
1	2	1	1	1	1	3	0	?	?	1	1	?	1
0	2	2	1	1	2	2	1	0	0	0	1	2	

*Dioplotherium manigaulti*

2	2	0	1	1	1	0	1	0	0	1	1	0	0
1	3	1	2	0	1	1	0	0	2	0	0	?	?
1	?	?	?	0	2	0	1	1	1	1	1	2	0
1	2	1	1	1	1	?	?	?	?	?	?	?	1
0	2	2	0	1	2	2	1	0	0	0	1	2	

*Dioplotherium allisoni*

2	2	0	1	1	2	0	2	0	?	?	1	0	0
1	3	1	1	1	0	1	0	0	?	?	0	0	1

1	1	1	1	1	2	0	1	1	1	1	1	1	0
1	2	1	1	?	1	3	0	2	1	1	1	1	1
0	2	2	1	1	2	2	1	0	0	0	1	2	

MPEG-63V

2	2	0	1	1	2	0	1	0	0	1	1	0	0
1	0	1	1	1	0	1	0	0	2	0	0	0	1
1	1	0	1	0	2	0	1	0	1	1	?	?	0
1	2	1	1	1	1	3	0	2	1	1	1	1	1
0	2	2	1	1	2	2	1	0	0	0	1	2	

ECOCHM 2491

2	2	0	1	1	2	0	?	0	0	0	1	0	0
1	3	1	1	1	0	1	0	1	1	0	0	0	1
1	1	1	1	1	2	0	1	1	1	1	1	?	?
1	2	1	1	1	1	?	?	?	?	?	?	?	1
0	2	2	1	1	2	2	1	0	0	0	1	2	

*Xenosiren yucateca*

?	2	?	1	?	?	?	?	2	1	1	1	?	?
1	3	1	2	0	1	1	?	?	?	?	?	?	?
?	1	1	?	0	2	?	1	1	1	?	?	?	?
?	?	?	?	?	?	?	?	?	?	?	?	?	1
0	?	3	1	1	2	?	1	0	0	0	1	2	

*Corystosiren varguezi*

2	?	1	1	1	1	?	?	?	?	?	1	?	0
1	3	2	2	0	1	1	?	0	1	0	?	0	1
1	?	0	?	0	2	0	1	0	0	1	?	?	?
?	?	?	1	1	1	?	?	?	?	?	?	?	1
0	2	3	1	1	2	2	1	0	0	0	1	2	

*Rytiodus heali*

2	2	0	1	2	1	0	2	0	0	0	1	0	0
1	1	1	2	0	0	1	0	1	?	0	0	?	?
1	1	0	?	0	2	0	1	0	1	1	2	2	0
1	1	?	1	1	1	3	1	?	1	1	1	?	1
0	2	3	1	1	2	2	1	0	0	0	1	2	

*Rytiodus capgrandi*

?	1	1	1	1	?	?	1	0	?	?	1	?	?
1	1	1	2	1	0	1	?	0	?	?	?	?	1
1	1	0	?	0	2	0	?	0	1	?	?	?	?
?	?	?	?	?	1	?	?	?	?	?	?	?	1
0	2	3	1	1	2	2	1	0	0	0	1	2	