

Supplementary Data 2

A new chelydroid turtle, *Lutemys warreni* gen. et sp. nov., from the Late Cretaceous
(Campanian) Kaiparowits Formation of southern Utah

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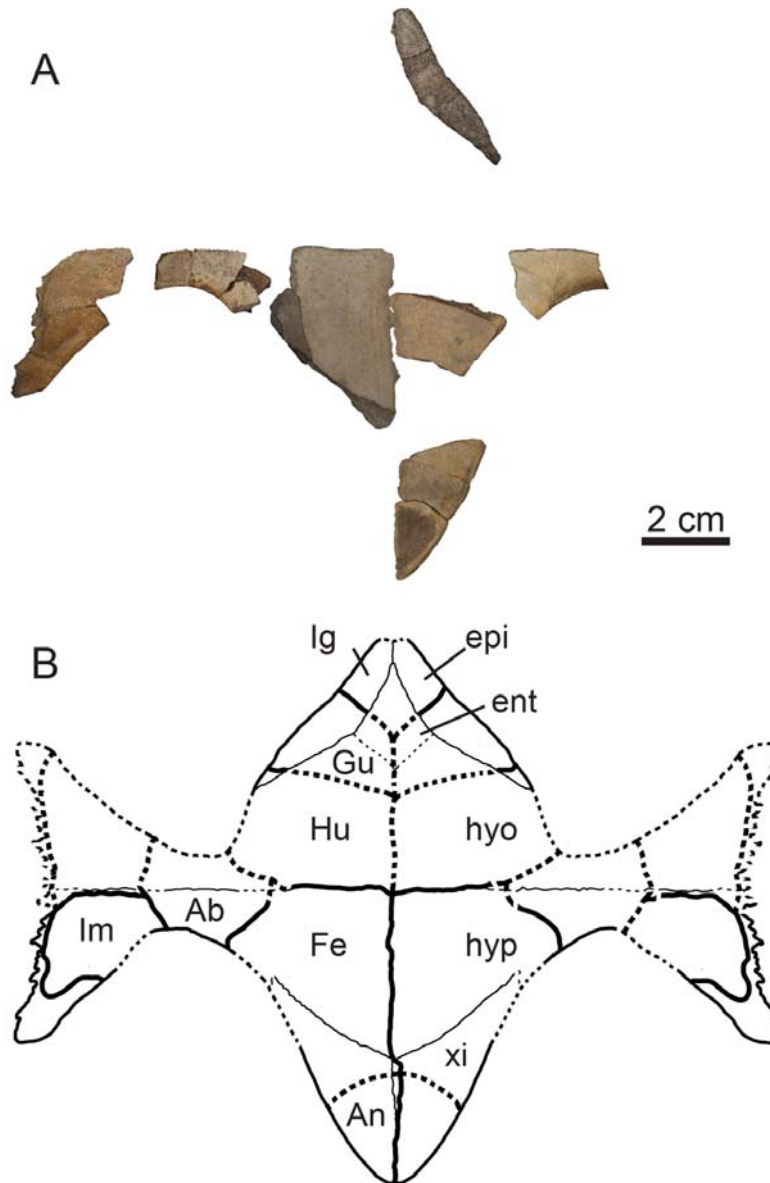
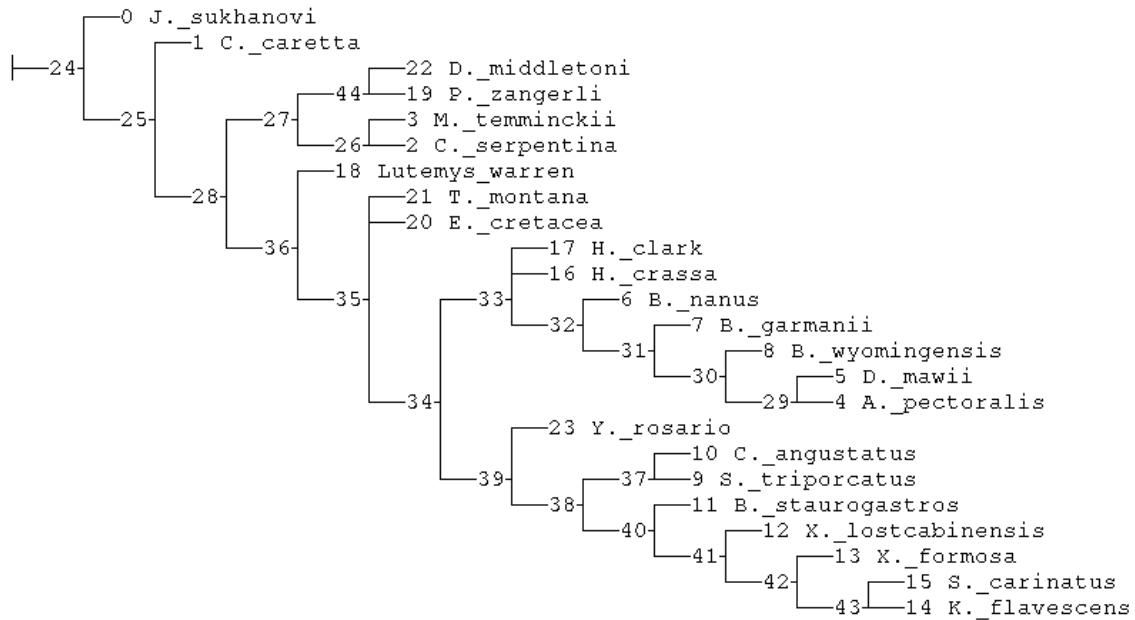


FIGURE S1. *Lutemys warreni*, DMNH EPV.89000, holotype, from the Kaiparowits Formation (upper Campanian) of Grand Staircase-Escalante National Monument, Utah, U.S.A. **A**, photograph and **B**, line drawing of the plastron. **Abbreviations:** **Ab**, abdominal scale; **An**, anal scale; **ent**, entoplastron; **epi**, epiplastron; **Fe**, femoral scale; **Gu**, gular scale; **Hu**, humeral scale; **hyo**, hyoplastron; **hyp**, hypoplastron; **Ig**, intergular scale; **Pe**, pectoral scale; **xi**, xiphiplastron.

APPENDIX S2

Strict consensus of 2 trees highlighting numeration of clades



Synapomorphies common to 2 trees

Node numbers refer to nodes in consensus above. Note that character number starts at 0 in TNT, not at 1.

Judithemys sukhanovi :

All trees:

No autapomorphies:

Caretta caretta :

All trees:

Char. 28: 2 --> 3

Char. 53: 0 --> 1

Char. 64: 1 --> 0

Chelydra serpentina :

All trees:

Char. 1: 0 --> 2

Char. 21: 4 --> 5

Char. 24: 1 --> 2

Char. 25: 1 --> 0

Macrochelys temminckii :

All trees:

Char. 11: 0 --> 1

Char. 12: 0 --> 1

Char. 13: 0 --> 1

Char. 40: 0 --> 1

Char. 52: 1 --> 0

Agomphus pectoralis :

All trees:

Char. 3: 2 --> 3

Char. 7: 0 --> 1

Char. 27: 1 --> 0

Dermatemys mawii :

All trees:

Char. 9: 01 --> 2

Char. 19: 0 --> 2

Char. 24: 1 --> 0

Char. 25: 2 --> 1

Char. 28: 2 --> 3

Char. 46: 1 --> 0

Char. 64: 1 --> 0

Baptemys nanus :

All trees:

Char. 55: 0 --> 1

Baptemys garmanii :

All trees:

No autapomorphies:

Baptemys wyomingensis :

All trees:

Char. 19: 0 --> 1

Staurotypus triporcatus :

All trees:

Char. 0: 0 --> 3

Char. 1: 0 --> 2

Char. 6: 0 --> 1

Claudius angustatus :

All trees:

Char. 18: 0 --> 1

Char. 47: 2 --> 0

Baltemys staurogastros :

All trees:

No autapomorphies:

Xenochelys lostcabinensis :

All trees:

No autapomorphies:

Xenochelys formosa :

All trees:

Char. 60: 1 --> 0

Kinosternon flavescens :

All trees:

Char. 33: 1 --> 2

Sternotherus carinatus :

All trees:

Char. 63: 1 --> 0

Hoplochelys crassa :

All trees:

No autapomorphies:

Hoplochelys clark :

All trees:

Char. 2: 1 --> 0

Char. 11: 0 --> 1

Lutemys warren :

All trees:

Char. 48: 0 --> 1

Char. 56: 0 --> 1

Protochelydra zangerli :

All trees:

No autapomorphies:

Emarginachelys cretacea :

All trees:

Char. 48: 0 --> 1

Tullochelys montana :

Some trees:

Char. 24: 1 --> 0

Denverus middletoni :

All trees:

Char. 1: 0 --> 12

Yelmochelys rosarioae :

All trees:

Char. 19: 0 --> 1

Char. 28: 1 --> 2

Node 25 :

All trees:

No synapomorphies

Node 26 :

All trees:

Char. 17: 2 --> 0

Char. 21: 23 --> 4

Char. 33: 0 --> 1

Char. 53: 0 --> 1

Node 27 :

All trees:

Char. 22: 8 --> 7

Char. 36: 1 --> 0

Node 28 :

All trees:

Char. 3: 3 --> 1

Char. 27: 0 --> 1

Char. 28: 2 --> 1

Char. 29: 0 --> 1

Node 29 :

All trees:

Char. 1: 1 --> 0

Char. 26: 0 --> 1

Char. 59: 0 --> 1

Node 30 :

All trees:

Char. 0: 2 --> 0

Node 31 :

All trees:

Char. 1: 2 --> 1

Node 32 :

All trees:

Char. 20: 1 --> 2

Char. 28: 1 --> 2

Char. 29: 1 --> 0

Char. 49: 0 --> 1

Node 33 :

All trees:

Char. 0: 0 --> 2

Char. 1: 0 --> 2

Node 34 :

All trees:

Char. 25: 1 --> 2

Char. 26: 1 --> 0

Char. 39: 0 --> 1

Char. 45: 0 --> 1

Some trees:

Char. 51: 0 --> 1

Node 35 :

All trees:

Char. 46: 0 --> 1

Char. 52: 1 --> 0

Some trees:

Char. 61: 0 --> 1

Char. 62: 0 --> 1

Char. 63: 0 --> 1

Node 36 :

All trees:

Char. 43: 0 --> 1

Char. 44: 0 --> 2

Node 37 :

All trees:

Char. 30: 0 --> 1

Char. 32: 0 --> 1

Node 38 :

All trees:

Char. 15: 0 --> 12

Char. 28: 1 --> 0

Char. 46: 1 --> 0

Node 39 :

All trees:

Char. 16: 0 --> 1

Char. 21: 3 --> 4

Char. 22: 8 --> 7

Char. 24: 1 --> 2

Node 40 :

All trees:

Char. 4: 0 --> 1

Char. 5: 0 --> 1

Char. 9: 1 --> 2

Char. 11: 0 --> 1

Node 41 :

All trees:

Char. 18: 0 --> 1

Char. 19: 0 --> 2

Char. 26: 0 --> 1

Char. 31: 0 --> 1

Node 42 :

All trees:

Char. 13: 0 --> 1

Node 43 :

All trees:

Char. 4: 1 --> 0

Char. 7: 1 --> 0

Char. 23: 0 --> 1

Char. 51: 1 --> 0

Node 44 :

All trees:

Char. 48: 0 --> 1