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SUPPLEMENTARY DATA

A new Cretaceous dercetid fish (Neoteleostei: Aulopiformes) from the Turonian of Colombia

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SUPPLEMENTARY DATA 1. Character state list used in the phylogenetic analysis adopted from Silva & Gallo (2011):

1. Body length: [0] slightly elongate (lesser than or equal to 1:10); [1] elongate (from 1:11 to 1:15); [2] very elongate (higher than 1:15).
2. Head height: [0] deep; [1] low.
3. Snout length: [0] short; [1] long.
4. Dermal pattern on skull roof: [0] smooth; [1] only with tubercles; [2] only with ridges; [3] tubercles + ridges.
5. Vomerine teeth: [0] absent; [1] present.
6. Number of teeth on dermopalatine: [0] two or more; [1] none; [2] single.

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7. Dermopalatine length: [0] twice or more times longer than its tooth; [1] equal-sized or shorter than its tooth.
8. Antorbital: [0] present; [1] absent.
9. Nasal: [0] present; [1] absent.
10. Anterior extremity of mesethmoid: [0] acute; [1] bifid.
11. Posterior extremity of mesethmoid: [0] bifid; [1] acute; [2] straight.
12. Autosphenotic spine: [0] straight; [1] posteriorly curved.
13. Suture between frontals: [0] slightly sinuous; [1] markedly sinuous.
14. Posterior border of frontal: [0] behind the autosphenotic spine; [1] at the level of the autosphenotic spine.
15. Shape of the post-orbital border: [0] concave; [1] convex.
16. Parietal length: [0] long (length equal or larger than its height); [1] short (length smaller than its height).
17. Supraorbital sensory canal in the skull roof: [0] covered; [1] exposed.
18. Extension of the supraoccipital: [0] not separating parietals; [1] separating parietals.
19. Supraoccipital crest: [0] present; [1] absent.
20. Supraoccipital with two well-delimited regions: [0] absent; [1] present.
21. Extension of pterotic: [0] not projecting backwards beyond the level of occiput; [1] projecting beyond the occiput.
22. Dilatator fossa: [0] unroofed; [1] roofed.
23. Exposition of the post-temporal fossa: [0] roofed; [1] unroofed.
24. Orbitosphenoid: [0] present; [1] absent.
25. Basisphenoid: [0] present; [1] absent.
26. Supraorbital: [0] present; [1] absent.
27. Lachrymal shape: [0] subtriangular; [1] suboval; [2] trapezoidal; [3] rod-shaped.
28. Position of the mandibular suspensorium: [0] inclined; [1] vertical.
29. Ectopterygoid: [0] toothless; [1] toothed.
30. Endopterygoid: [0] toothless; [1] toothed.

31. Placement of articular facet for the hyomandibula: [0] posteroventral; [1] ventral.
32. Number of articular facet for the hyomandibula: [0] a continuous facet; [1] two facets.
33. Premaxilla: [0] toothed; [1] toothless.
34. Posterior extension of the premaxilla: [0] reaching the orbit; [1] not reaching the orbit.
35. Dermal pattern on premaxilla: [0] smooth, [1] ornamented.
36. Fenestra in the premaxilla: [0] absent; [1] present.
37. Ascending process of the premaxilla: [0] absent; [1] present.
38. Maxilla: [0] toothless; [1] toothed.
39. Placement of the maxilla: [0] over the premaxilla; [1] behind the premaxilla.
40. Teeth on upper jaw: [0] only straight; [1] absent; [2] curved + straight; [3] only curved.
41. Supramaxilla: [0] absent; [1] present.
42. Mandible length: [0] equal to the snout; [1] shorter than the snout.
43. Teeth on mandible: [0] only straight; [1] only curved; [2] curved + straight.
44. Teeth size on upper jaw: [0] absent or with same height; [1] with different height.
45. Teeth size on mandible: [0] different height; [1] equal height.
46. Rows of teeth on upper jaw: [0] single; [1] two or more.
47. Rows of teeth on mandible: [0] single; [1] two or more.
48. Anteroventral prongs on dentary: [0] absent; [1] present.
49. Mandibular sensory canal: [0] enclosed by bone; [1] partially open; [2] open.
50. Mandibular dermal pattern: [0] smooth, [1] ornamented.
51. Flange on anguloarticular: [0] present; [1] absent.
52. Quadrate-mandibular articulation: [0] exposed; [1] hidden.
53. Articular facet for the quadrate: [0] shallow; [1] deep.
54. Retroarticular process: [0] present, [1] absent.
55. Ornamentation in the infraorbital bones: [0] smooth, [1] ornamented.
56. Preopercle shape: [0] L-shaped; [1] triangular; [2] crescent-shaped; [3] rod-shaped; [4] pipe-shaped.
57. Preopercular dermal pattern: [0] smooth; [1] ornamented.

58. Posteroventral spine in the preopercle: [0] absent or reduced, [1] well-developed.
59. Dimension of the opercle: [0] deeper than long; [1] longer than deep.
60. Opercle crest: [0] absent; [1] present.
61. Spine on posterior border of the opercle: [0] absent; [1] present.
62. Opercular and subopercular dermal pattern: [0] smooth; [1] ornamented.
63. Interopercle: [0] present; [1] absent.
64. Mesocoracoid: [0] absent; [1] present.
65. Scapula and coracoid: [0] individualized; [1] co-ossified.
66. Supraneurals: [0] present; [1] absent.
67. Total number of vertebrae: [0] more than 50; [1] equal or minus than 50.
68. Number of caudal vertebrae: [0] more than 20; [1] equal or minus than 20.
69. Ribs: [0] extending to the pelvic fin origin; [1] surpassing the pelvic fin origin.
70. Transverse processes: [0] one pair; [1] two pairs.
71. Neural spines: [0] well-developed (their length surpassing the length of the vertebral centrum); [1] very reduced (their length equal or minus than half of the length of the vertebral centrum).
72. Neural spines bifid in the abdominal region: [0] present; [1] absent.
73. Distribution of epipleurals: [0] extending to more than a half of the body; [1] up to half of the body.
74. Distribution of epineurals: [0] extending to more than a half of the body; [1] up to half of the body.
75. Position of the pectoral fin: [0] high (last fin-ray placed at the level of the ventral border of the opercle or a little above); [1] low (last fin-ray placed below the level of the ventral border of the opercle).
76. Orientation of the pectoral fin base: [0] vertical; [1] horizontal; [2] inclined.
77. Origin of the pelvic fin: [0] anterior to the dorsal fin; [1] opposite or posterior to the dorsal fin.
78. Dorsal fin length: [0] short (lesser than 20 rays); [1] long (more than 20 rays).
79. Shape of the first proximal pterygiophore of the dorsal fin: [0] different from the remnants; [1] all equal in shape.
80. Anal fin length: [0] short (up to 15 rays); [1] long (more than 15 rays).

81. Anal fin edge: [0] not serrated; [1] serrated.
82. Fusion of hypurals: [0] free; [1] fused.
83. Contact between hypurals 2-3: [0] free; [1] with convoluted suture.
84. Body scales: [0] present; [1] absent.
85. Flank scutes: [0] absent; [1] triangular; [2] cordiform; [3] tripartite; [4] rectangular.
86. Number of rows of scutes on flanks: [0] absent; [1] single; [2] two or more.
87. Middorsal scutes: [0] absent; [1] present.

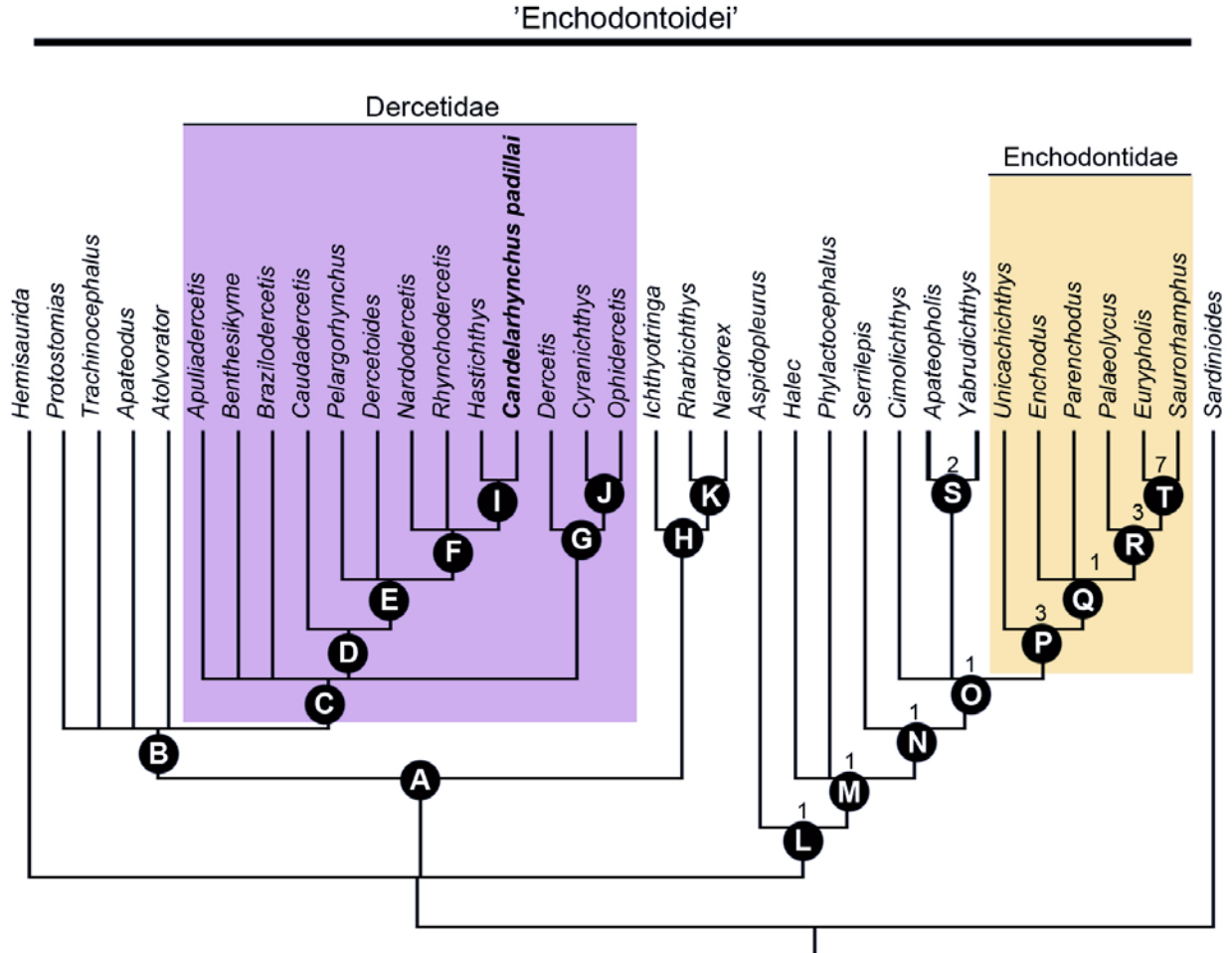


Figure 1. Strict consensus of 151 MPTs (CI = 0.234; RI = 0.483) obtained from the analysis of the †Enchodontoidei data set. Values at the nodes indicate Bremer support/bootstrap (> 50%) values where present. Daggers (†) indicate extinct taxa. Letter labels A – T indicate nodes on the tree. Characters supporting clades and autapomorphies for individual taxa: †*Apateodus*: 13:1, 38:0, 53:1, 56:3, 60:1, 64:1; †*Apateopholis*: 32:0, 45:1, 50:0, 54:1, 73:1, 76:1; †*Apuliadercetis*: 5:1, 11:0, 14:1, 15:1, 27:3, 29:0, 37:1, 43:0, 55:1, 59:1, 75:1, 76:2; †*Aspidopleurus*: 5:1, 17:1, 30:0, 39:1, 41:0, 46:1, 63:1, 65:1, 68:0, 73:1, 74:1, 76:2; †*Atolvorator*: 12:1, 13:1, 17:1, 18:1, 23:1, 41:1, 43:0, 47:1, 53:1, 63:1, 66:1, 68:1, 75:1, 76:1; †*Benthesisikyme*: 19:1, 40:3; †*Brazilodercetis*: 4:2, 23:1, 27:3, 29:0, 33:1, 42:1, 43:1, 45:1, 49:0, 56:4, 59:1; †*Candelarhynchus padillai* gen. et sp. nov.: 11:1, 16:0, 21:0, 31:0, 51:1, 54:1, 56:2, 70:0, 72:0, 85:0; †*Caudadercetis*: 80:1, 81:1, 85:0; †*Cimolichthys*: 4:2, 11:0, 22:1,

23:0, 43:2, 51:0, 54:1, 57:0, 67:0, 85:2, 86:2; †*Cyranichthys*: 1:1, 4:2, 38:0, 40:0, 59:1;
 †*Dercetis*: 4:1, 10:1, 43:1, 45:1, 51:1, 54:1; †*Dercetoides*: 4:1, 14:1, 29:0, 40:3, 43:1, 47:1,
 56:3, 62:1, 65:1; †*Enchodus*: 32:0, 50:0, 68:1; †*Eurypholis*: 38:1, 43:2, 47:0, 51:0, 68:1, 76:0,
 80:0; †*Halec*: 45:0; †*Hastichthys*: 14:1; †*Hemisaurida*: 14:1, 40:3, 54:1, 56:2, 58:1, 76:2;
 †*Ichthyotringa* : 1:1, 2:1, 3:1, 47:1, 54:1, 60:1, 64:1; †*Nardodercetis*: 21:0, 29:0, 39:0, 75:1,
 76:1, 77:0, 82:0; †*Nardorex*: 10:1, 20:1, 34:0, 38:0, 39:1, 40:3, 43:0, 56:0, 58:1, 59:1, 63:1,
 80:1; †*Ophidercetis*: 56:3, 77:0; †*Palaeolycus*: 35:0, 37:0, 67:0; †*Parenchodus*: 13:1, 24:0,
 28:0, 40:3, 43:2, 65:1, 66:1, 69:0, 70:1, 72:0, 73:1, 76:0, 78:1; †*Pelargorhynchus*: 1:1, 4:3,
 19:1, 34:0, 35:1, 63:1, 70:0, 75:1, 78:1, 84:0, 85:2; †*Phylactcephalus*: 11:0, 22:1, 47:0, 73:1,
 74:1; †*Protostomias* : 6:1, 11:0, 18:1, 23:1, 27:1, 29:0, 33:1, 38:0, 40:1, 43:1, 50:1, 51:1, 56:0,
 63:1, 66:1, 69:0, 72:0, 80:1; †*Rharbichthys*: 6:2, 7:1, 18:1, 19:1, 44:1, 53:1, 62:1, 69:0, 76:2,
 77:1, 85:4, 86:1; †*Rhynchodercetis*: 15:1, 49:0, 54:1, 78:1; †*Sardinoides* : 10:1, 11:0, 37:1,
 38:0, 43:0, 56:0, 69:0, 79:1; †*Saurorhamphus*: 2:1, 3:1, 6:0, 32:0, 40:3, 84:0; †*Serrilepis*:
 13:1, 21:1, 27:0, 32:0, 34:1, 65:1, 79:1; *Trachinocephalus*: 4:3, 12:1, 21:0, 22:1, 27:0, 29:0,
 32:1, 40:2, 44:1, 46:1, 47:1, 56:2, 72:0, 76:1, 84:0; †*Unicachichthys*: 19:1, 39:1, 40:2, 58:1,
 68:1, 72:0; †*Yabrudichthys*: 6:1, 21:1, 24:0, 29:0, 30:0, 59:1, 62:0, 78:1, 79:1; **Node A**: 16:0,
 34:1, 41:0, 43:2, 45:0, 77:0; **B**: 21:1, 26:0, 67:0, 68:0, 75:0; **C**: 1:2, 2:1, 3:1, 26:1, 39:1, 40:2,
 44:1, 71:1, 77:1, 82:1, 85:3; **D**: 11:0, 18:1, 23:1, 83:1; **E**: 16:1, 40:0, 44:0, 45:1; **F**: 12:1, 33:1,
 42:1, 43:0; **G**: 37:1, 47:1, 70:0, 78:1; **H**: 8:1, 51:1; **I**: 18:0, 23:0, 35:1; **J**: 85:1; **K**: 4:2, 37:1,
 72:0; **L**: 24:1, 25:1, 47:1, 57:1, 60:1; **M**: 23:1, 26:0, 35:1, 50:1, 62:1; **N**: 44:0, 51:1, 63:1,
 82:1; **O**: 8:1, 43:0, 45:0, 68:0, 76:2, 84:1; **P**: 17:1, 26:1, 37:1, 44:1, 48:1, 87:1; **Q**: 6:2, 80:1;
R: 30:0, 36:1, 39:1, 48:0, 77:0; **S**: 3:1, 28:0, 34:1, 35:0, 41:0, 47:0, 58:1, 69:0; **T**: 23:0, 44:0,
 52:1, 58:1, 61:1, 75:0, 85:1, 86:1.

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