http://app.pan.pl/SOM/app71-LeroseyAubril_OrtegaHernandez_SOM.pdf

SUPPLEMENTARY ONLINE MATERIAL FOR

A new hurdiid radiodont with a uniquely spinose carapace from the middle Cambrian Wheeler Formation of Utah

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Supplementary Online Material

SOM 1: Figs. 1–10. Tree topologies.

SOM 2. The nexus file used for Bayesian Inference phylogenetic analysis. It is based on character matrix of Wu et al. 2024 after inclusion of the new taxon; available at http://app.pan.pl/SOM/app71-LeroseyAubril_OrtegaHernandez_SOM/SOM_2.nex

References

Wu, Y., Pates, S., Liu, C., Zhang, M., Lin, W., Ma, J., Wu, Y., Chai, S., Zhang, X., and Fu, D. 2024. A new radiodont from the lower Cambrian (Series 2 Stage 3) Chengjiang Lagerstätte, South China informs the evolution of feeding structures in radiodonts. *Journal of Systematic Palaeontology* 22: 2364887.

SOM 1: Tree topologies recovered under implied-weight parsimony analysis (k = 1–10).

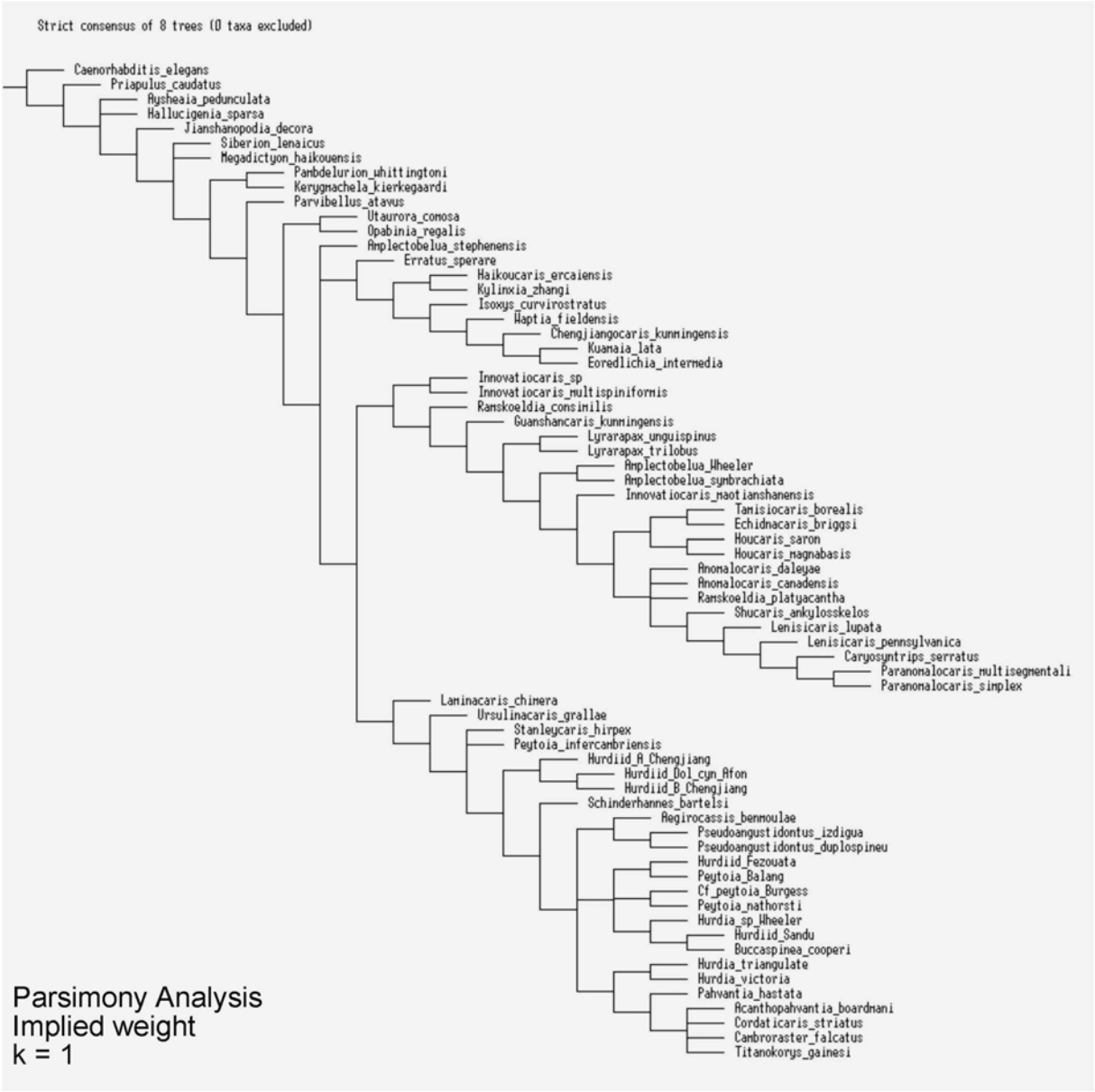


Fig. S1.

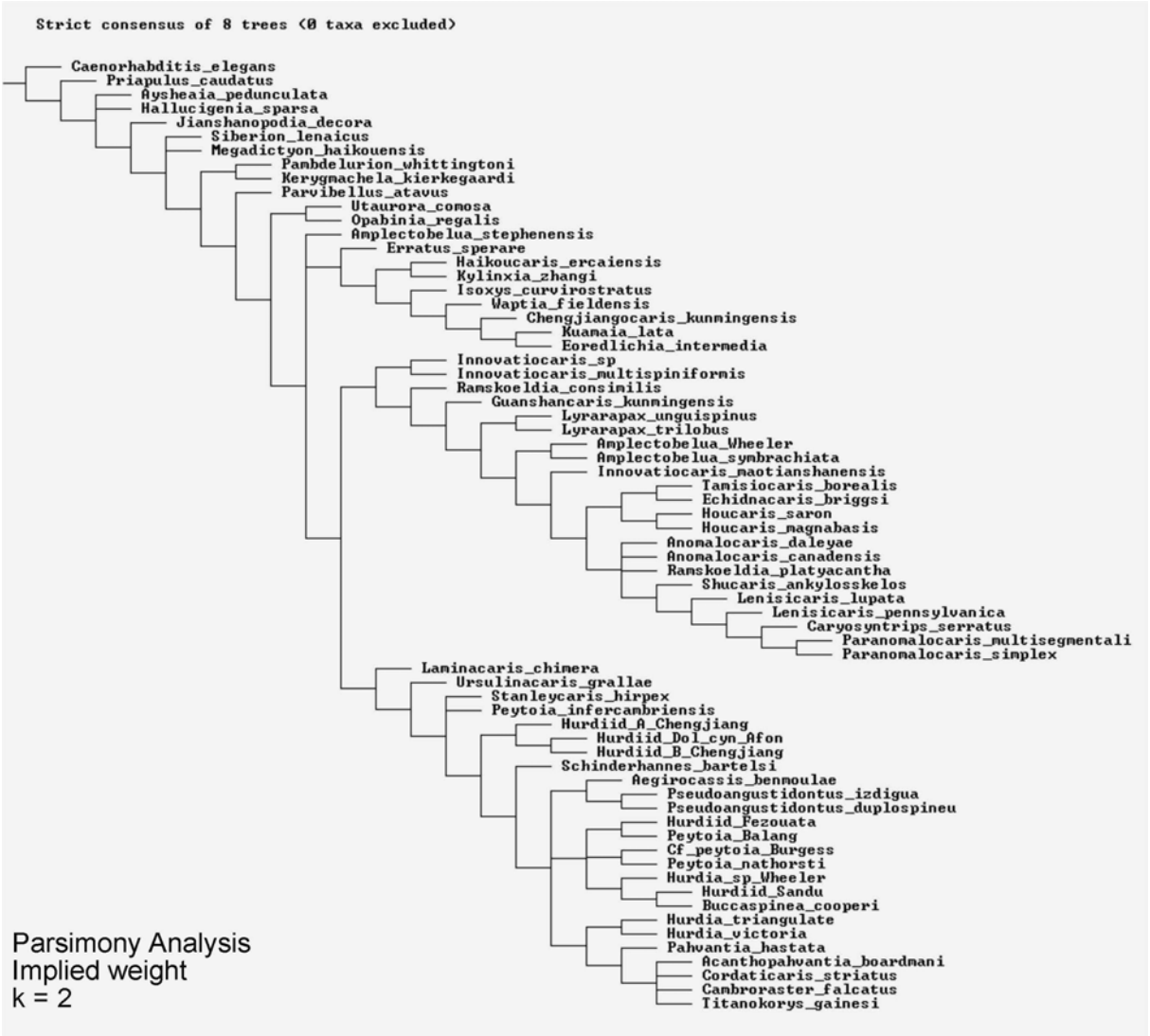

Strict consensus of 8 trees (0 taxa excluded)
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Hallucigenia_sparsa
Jianshanopodia_decora
Siberion_lenaicus
Megadictyon_haikouensis
Pambdelurion_whittingtoni
Kerygmachela_kierkegaardi
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Utaurora_comosa
Opabinia_regalis
Amplectobelua_stephenensis
Erratus_sperare
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Kylinxia_zhangi
Isoxys_curvirostratus
Waptia_fieldensis
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Kuamaia_lata
Eoredlichia_intermedia
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Innovatiocaris_multispiniformis
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Stanleycaris_hirpex
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Peytoia_nathorsti
Hurdia_sp_Wheeler
Hurdiid_Sandu
Buccaspinea_cooperi
Hurdia_triangulate
Hurdia_victoria
Pahvantia_hastata
Acanthopahvantia_boardmani
Cordaticaris_striatus
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 2

Fig. S2

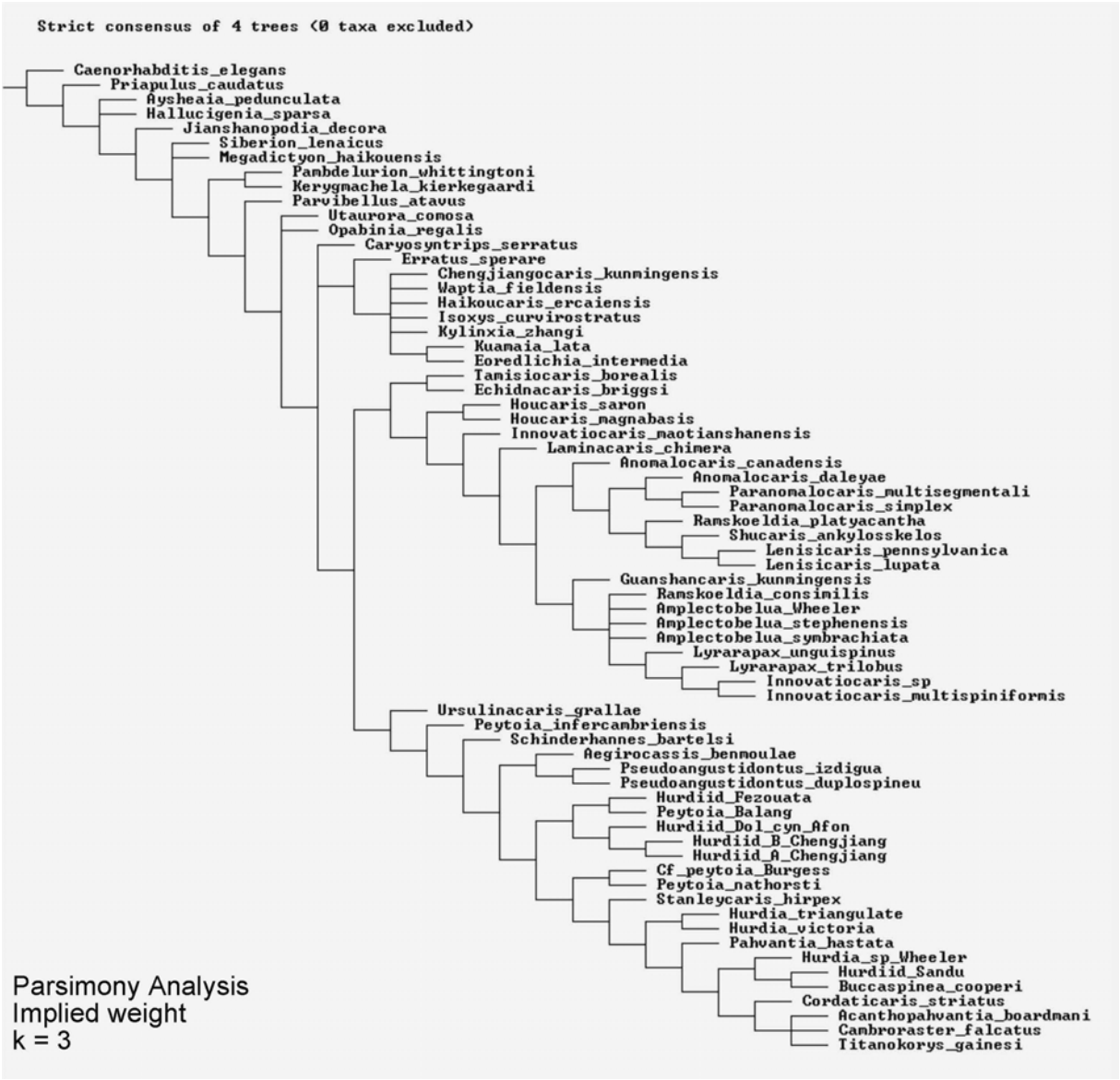

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Lyrarapax_trilobus
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Stanleycaris_hirpex
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Hurdia_victoria
Pahvantia_hastata
Hurdia_sp_Wheeler
Hurdiid_Sandu
Buccaspinea_cooperi
Cordaticaris_striatus
Acanthopahvantia_boardmani
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 3

Fig. S3

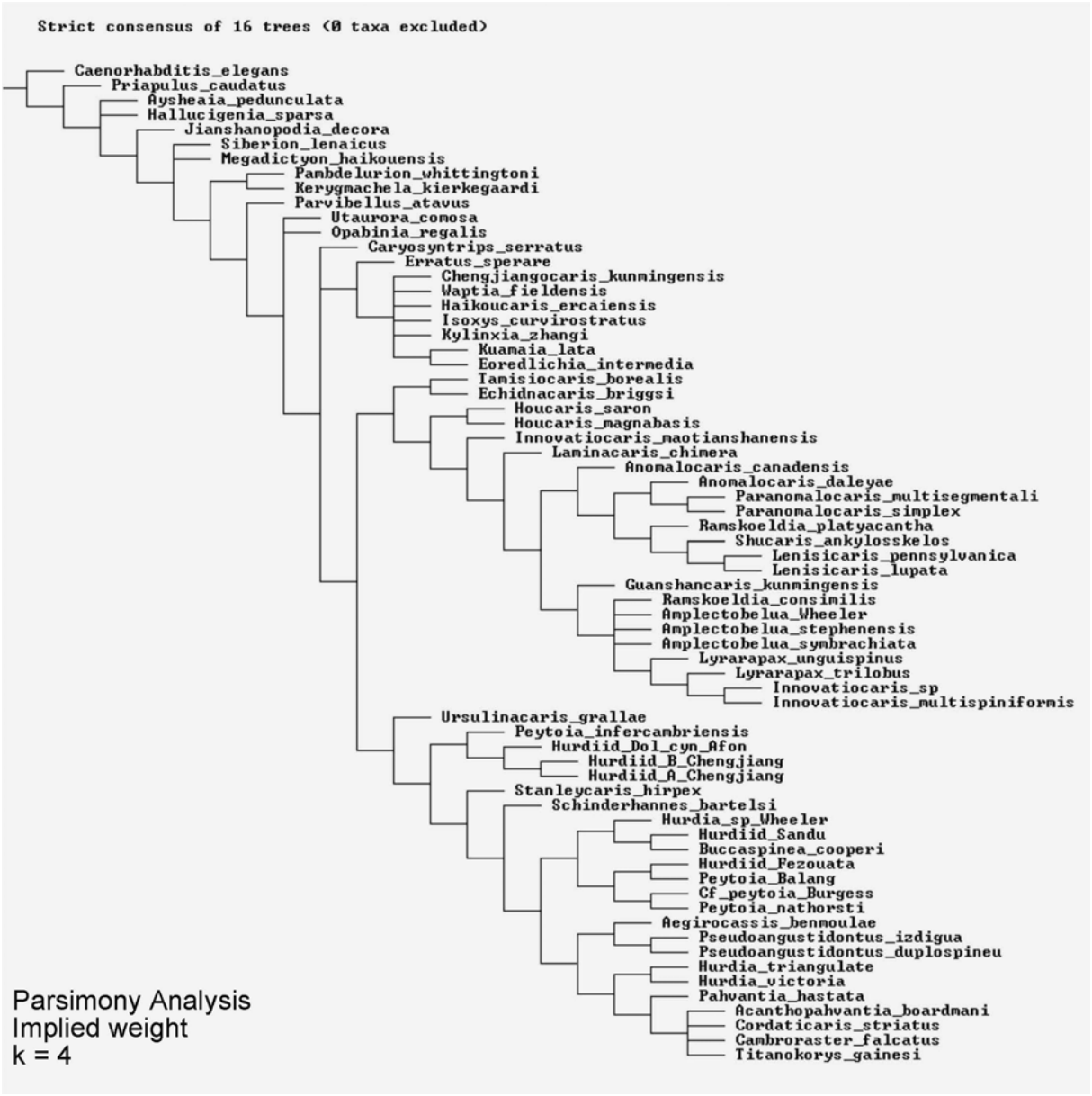

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Hurdia_victoria
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Acanthopahvantia_boardmani
Cordaticaris_striatus
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 4

Fig. S4

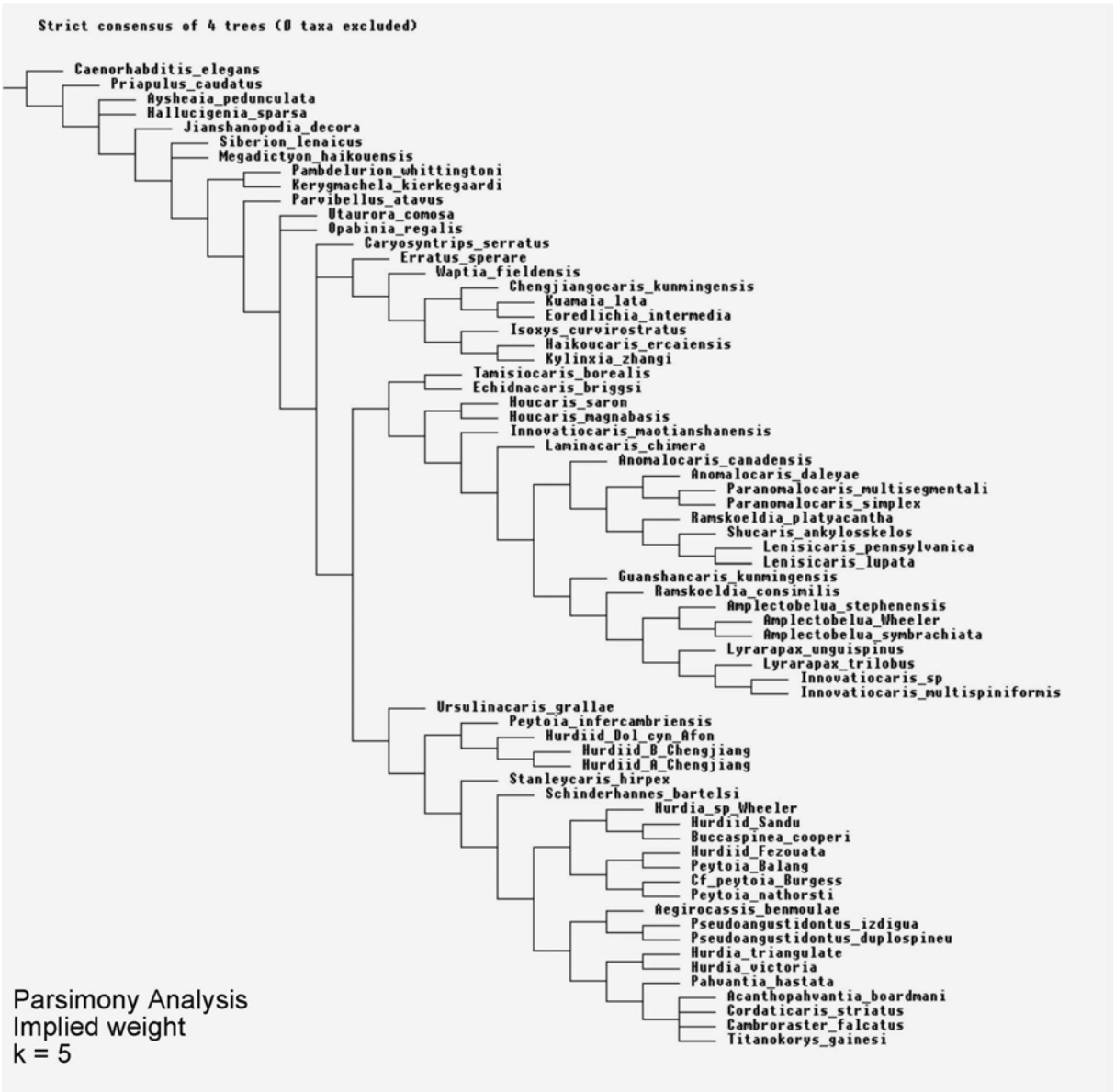

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Hurdia_victoria
Pahvantia_hastata
Acanthopahvantia_boardmani
Cordaticaris_striatus
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 5

Fig. S5

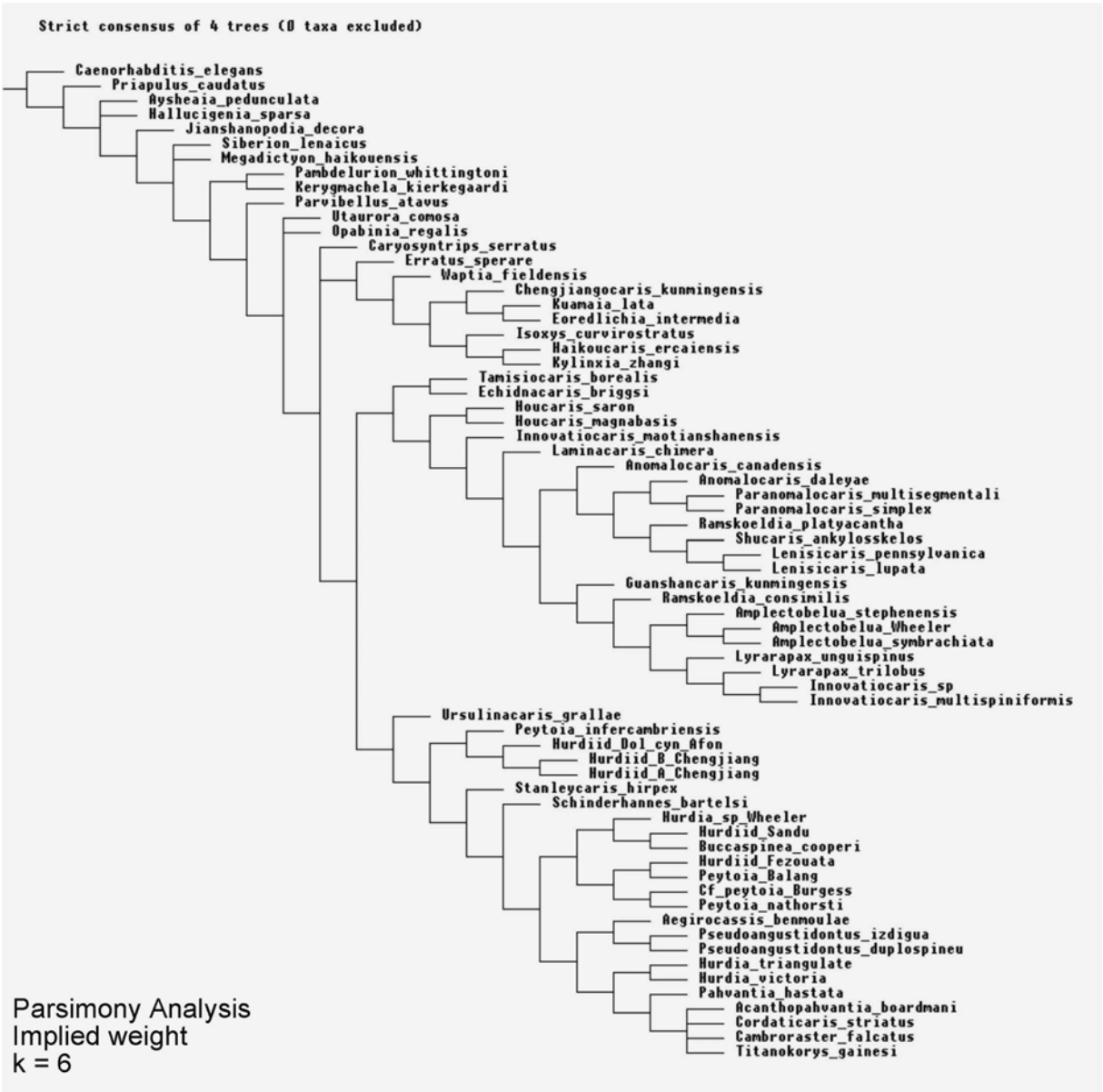

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Pahvantia_hastata
Acanthopahvantia_boardmani
Cordaticaris_striatus
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 6

Fig. S6


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Megadictyon_haikouensis
Pambdelurion_whittingtoni
Kerygmachela_kierkegaardi
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Utaurora_comosa
Opabinia_regalis
Caryosyntrips_serratus
Erratus_sperare
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Houcaris_magnabasis
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Paranomalocaris_multisegmentali
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Pahvantia_hastata
Acanthopahvantia_boardmani
Cordaticaris_striatus
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 7

Fig. S7

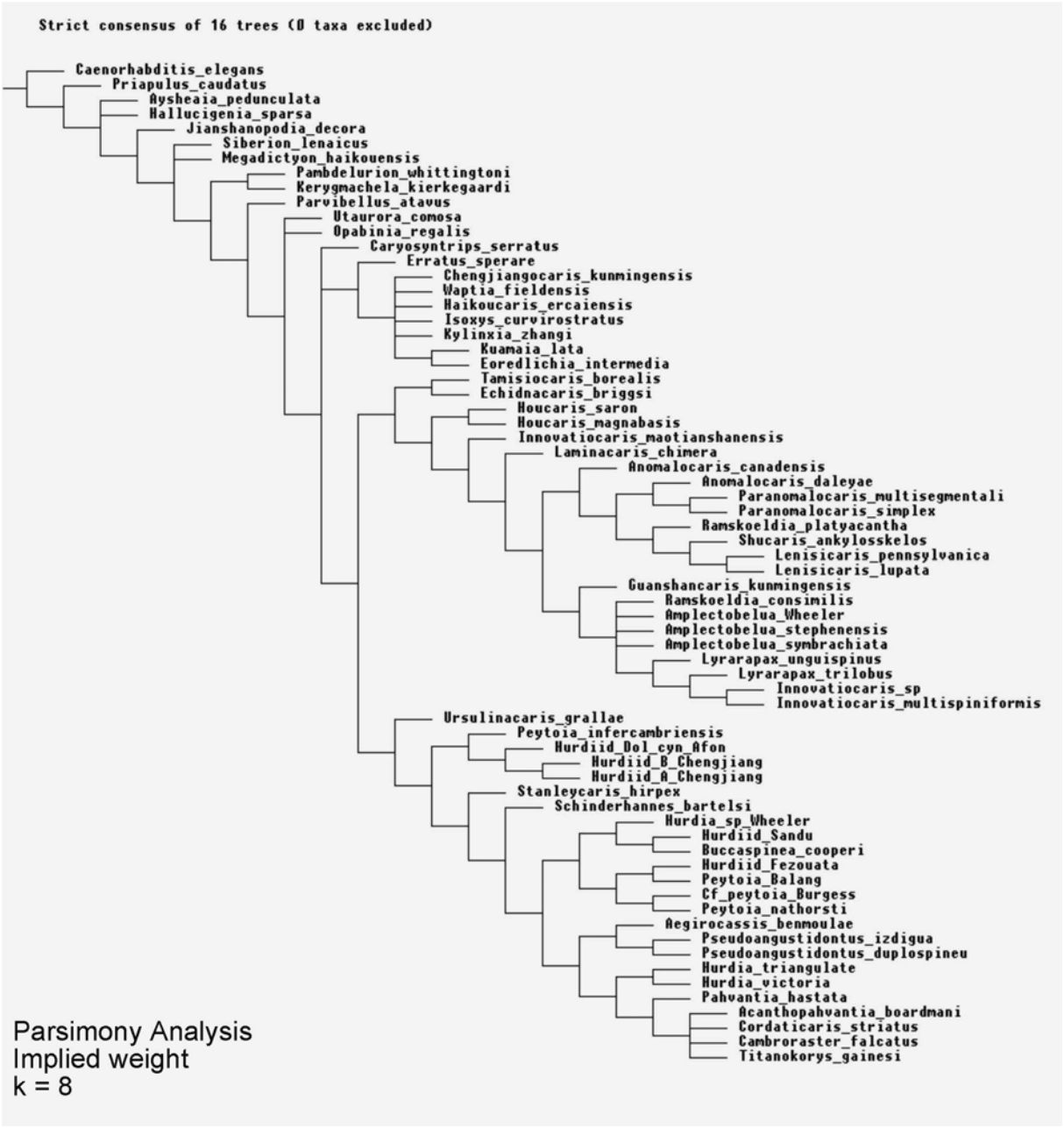

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Parsimony Analysis
Implied weight
k = 8

Fig. S8

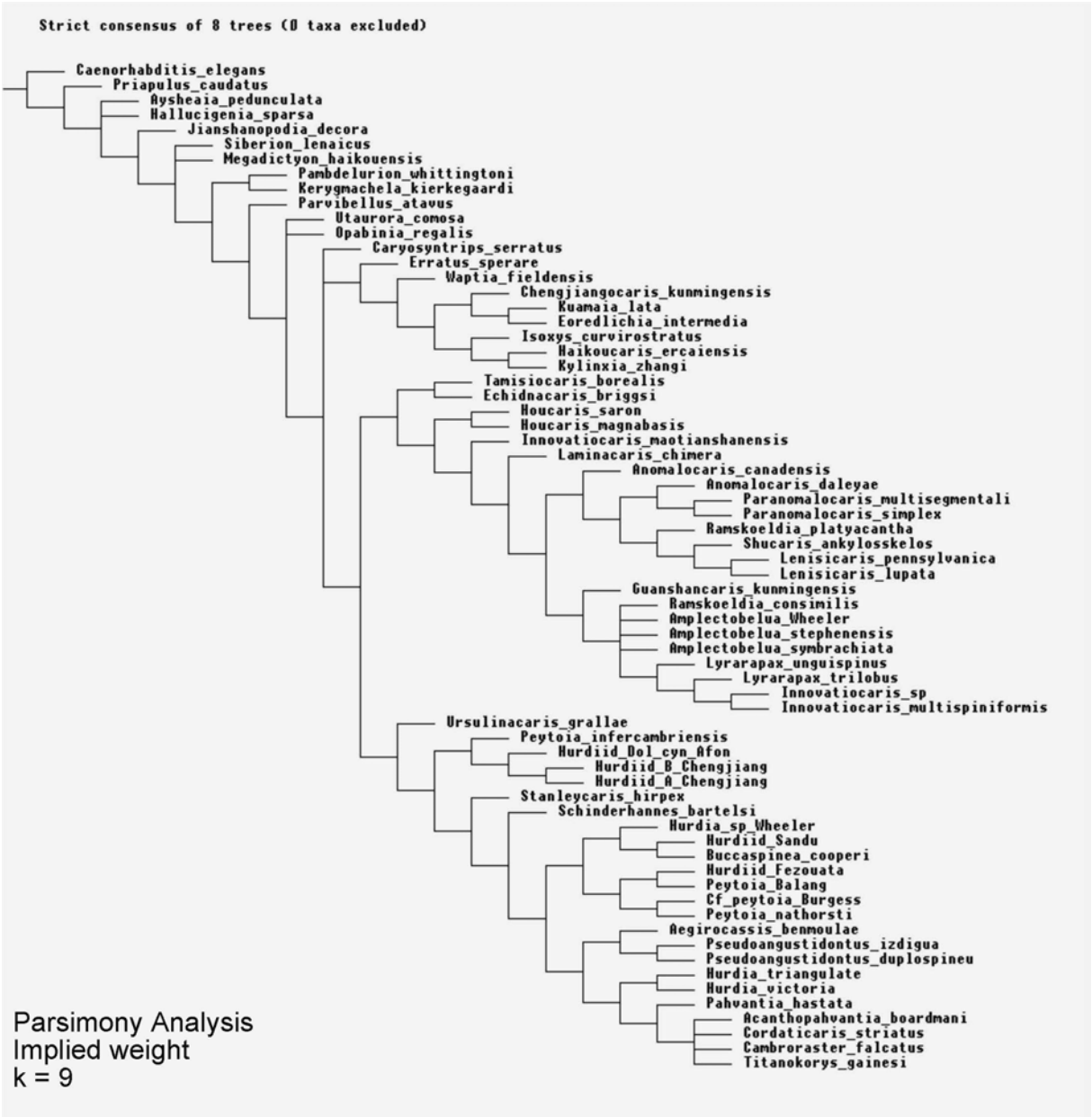

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Acanthopahvantia_boardmani
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Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 9

Fig. S9

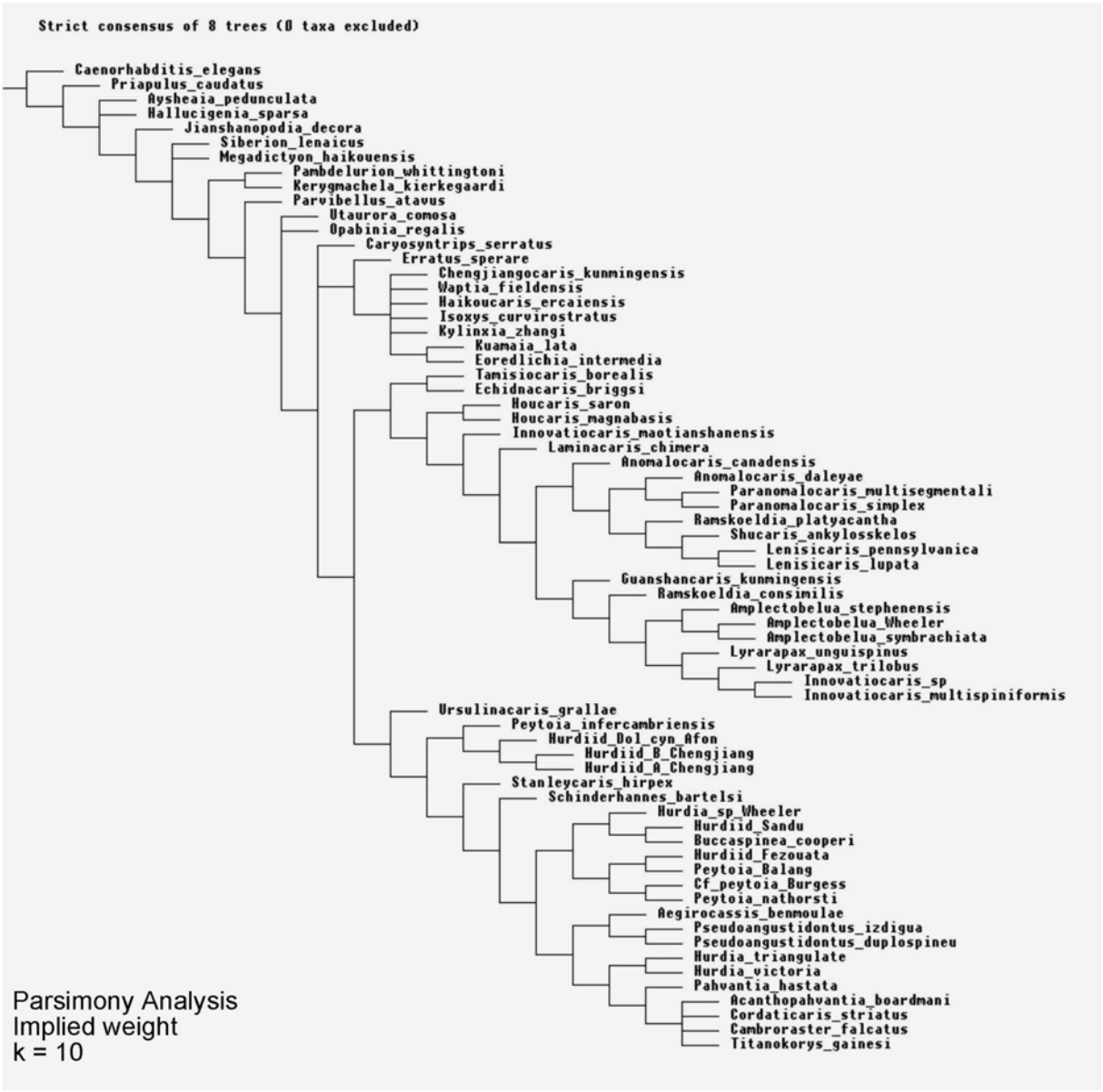

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Amplectobelua_symbrachiata
Lyrarapax_unguispinus
Lyrarapax_trilobus
Innovatiocaris_sp
Innovatiocaris_multispiniformis
Ursulinacaris_grallae
Peytoia_infercambriensis
Hurdiid_Dol_cyn_Afon
Hurdiid_B_Chengjiang
Hurdiid_A_Chengjiang
Stanleycaris_hirpex
Schinderhannes_bartelsi
Hurdia_sp_Wheeler
Hurdiid_Sandu
Buccaspinea_cooperi
Hurdiid_Fezouata
Peytoia_Balang
Cf_peytoia_Burgess
Peytoia_nathorsti
Aegirocassis_benmoulae
Pseudoangustidontus_izdigua
Pseudoangustidontus_duplospineu
Hurdia_triangulate
Hurdia_victoria
Pahvantia_hastata
Acanthopahvantia_boardmani
Cordaticaris_striatus
Cambroraster_falcatus
Titanokorys_gainesi
Parsimony Analysis
Implied weight
k = 10

Fig. S10