Phrynops_geoffroanus
Chelus_fimbriata Chelodina_oblonga Chelodina_longicollis Figure 1. Phylogenetic analyses from Maximum Likelihood method for the morphology Myuchelys_latisternum
— Elseya_dentata Araripemys_barretoi
Podocnemis_expansa — Pelomedusa_subrufa
Erymnochelys_madagascariensis — Platychelys_oberndorferi Caribemys_oxfordiensis Notoemys_laticentralis Chelonoidis_chilensis Mongolemys_elegans
— Geoclemys_hamiltonii Emys_orbicularis Trachemys_scripta Chrysemys_picta Gopherus_polyphemus Dermatemys_mawii Baptemys_wyomingensis Kinosternon_flavescens Sternotherus_odoratus Kinosternon_subrubrum Staurotypus_triporcatus Emarginachelys_cretacea Hoplochelys_crassa Adocus_beatus Basilemys_variolosa
Zangerlia_neimongolensis Lissemys_punctata Pelodiscus_sinensis Apalone_spinifera Allaeochelys_libyca Carettochelys_insculpta Anosteira_ornata Peltochelys_durlstonensis Siamochelys_peninsularis Chelydra_serpentina
Macrochelys_temminckii
Platysternon_megacephalum Protochelydra_zangerli Caretta_caretta Lepidochelys_olivacea Lepidochelys_kempii
Eretmochelys_imbricata Eosphargis_breineri Dermochelys_coriacea Chelonia_mydas Natator_depressus Puppigerus_camperi Allopleuron_hoffmanni
Argillochelys_cuneiceps Eochelone_brabantica
_____ Santanachelys_gaffneyi Rhinochelys_pulchriceps
Bouliachelys_suteri Desmatochelys_lowii
 Desmatochelys_padillai Notochelone costata Ocepechelon_bouyai Archelon ischvros Protostega_gigas Mesodermochelys_undulatus Toxochelys_latiremys Ordosemvs leios Hangaiemys_hoburensis Judithemys_sukhanovi Kirgizemys_dmitrievi Kiraizemys hoburensis Dracochelys_bicuspis Sinemys_gamera Sinemys_lens
Xinjiangchelys_latimarginalis Xinjiangchelys_radiplicatoides
Xinjiangchelys_wusu Annemys_latiens Annemys_levensis Plesiochelys_solodurensis
Plesiochelys_etalloni Plesiochelys_planiceps Jurassichelon_oleronensis Thalassemys_moseri
Portlandemys_mcdowelli Leyvachelys_cipadi
Brachyopsemys_tingitana
Sandownia_harrisi Solnhofia_parsoni Chisternon_undatum Baena_arenosa Boremys_pulchra Plesiobaena_antiqua Eubaena_cephalica Trinitichelys_hiatti Neurankylus_eximius — Dorsetochelys_delairi Dinochelys_whitei Pleurosternon bullockii Glyptops_plicatulus Arundelemys_dardeni Niolamia_argentina Meiolania_platyceps Mongolochelys_efremovi Chubutemys_copelloi Kallokibotion_bajazidi Eileanchelys_waldmanni Kayentachelys_aprix Heckerochelys_romani Condorchelys_antiqua Indochelys_spatulata Proterochersis_robusta Palaeochersis_talampayensis Australochelys_africanus Proganochelys_quenstedti Sphenodon_punctatus

Anthodon_serrarius

Owenetta_kitchingorum

Figure 2. Phylogenetic analyses from Maximum Likelihood method for the molecular partition.

