

Phylogenetic tree of the genus *Amphiphiopus* based on 18S rDNA sequences. The tree is rooted on the left and branches out to the right. Species names are listed on the right side of the tree, corresponding to the tips of the branches. The tree shows several major clades, including a large group of *Amphiphiopus* species, a group of *Phreatocoides* species, and a group of other related genera like *Carierius*, *Colubeton*, and *Metaphreaticus*. Bootstrap values are indicated at the nodes, with some values in parentheses and others in brackets. The scale bar at the bottom left represents 0.01 substitutions per site.

Species names (from top to bottom):

- Amphiphiopus amnecians*
- Amphiphiopus lintoni*
- Phreatonemus latipes*
- Amphiphiopus pallastis*
- Platygygia subspetiae*
- Amphiphiopus n. sp.*
- Amphiphiopus capensis*
- Amphiphiopus abbreviatus*
- Crenosius beei*
- Phreatocoides sp. 6*
- Phreatocoides sp. 4*
- Synamphiphiopus doegi*
- Synamphiphiopus ambiguus*
- Photamphiphiopus viennensis*
- Phreatocopsis lenticola*
- Phreatocopsis rarifera*
- Old. n. sp. 2*
- Old. n. sp. 1*
- Crenosius aculeator*
- Phreatocoides fontinalis*
- Stenoculus viridis*
- Colobetrongus lepidus*
- Colaspisoides obtusifrons*
- Hyperoedipius plumosus*
- Nicholsia kaizeriae*
- Phreatocoides gracilis*
- Phreatocoides sp. A*
- Phreatocoides sp. B*
- Phreatocoides retusus*
- Phreatocoides parvicornis*
- Carierius aphidivorus*
- Carierius beckeri*
- Carierius burnetensis*
- Carierius nigrescens*
- Metaphreaticus flavus*
- Metaphreaticus dumetensis*
- Phreatocoides eximilis*
- Phreatocoides typicus*
- Phreatocoides orani*
- Crenosius n. sp.*
- Crenosius hamiltoni*
- Crenosius zumbie*
- Metaphreaticus affinis*
- Colubeton sp. 1*
- Colubeton sp. 2*
- Colubeton seardi*
- Colubeton jynnei*
- Phangphreaticus relictus*
- Colubeton fontinalis*
- Metaphreaticus megastis*
- Metaphreaticus sp.*
- Metaphreaticus lacustris*
- Metaphreaticus australis*
- Metaphreaticus setosus*
- Metaphreaticus dominiensis*
- Amphiphiopus pearsoni*
- Anchelonema apatula*
- Anchelonema leucostictus*

[illegible]

Phylogenetic tree of the genus *Amphispocus* based on 18S rDNA sequences. The tree is rooted on the left and branches out to the right. The species names are listed on the right side of the tree. The tree shows several distinct clades, including a group of species from the Americas (e.g., *Amphispocus annexans*, *Amphispocus frontalis*), a group from Europe (e.g., *Amphispocus belgicus*, *Amphispocus palustris*), a group from Africa (e.g., *Amphispocus aciviller*, *Amphispocus niger*), and a large group from Asia (e.g., *Amphispocus sinensis*, *Amphispocus japonicus*). The tree is well-supported with bootstrap values at the nodes.

Species names (from top to bottom):

- Amphispocus annexans*
- Amphispocus frontalis*
- Phreatosaurus belgicus*
- Amphispocus palustris*
- Eremipogon beei*
- Eremipogon* sp. 6
- Eremipogon* sp. 4
- Tatyoga subpiperis*
- Mezomphipogon n. sp.*
- Mezomphipogon capensis*
- Mezomphipogon albiventris*
- Cremipogon aciviller*
- Atid nsp 2*
- Atid nsp 1*
- Synamphipogon doogii*
- Synamphipogon ambigua*
- Phreatoboscipis senecala*
- Phreatoboscipis ruffae*
- Phreatoboscipis pascalis*
- Protamphipogon wiamamattensis*
- Trinipogon frontalis*
- Cremipogon virens*
- Spelaeopogon lepidus*
- Spelaeopogon obtusirostris*
- Phreatoboscipis* sp. Zeehan
- Phreatoboscipis gracilis*
- Phreatoboscipis* sp. A
- Phreatoboscipis* sp. B
- Hypsimogon rufus*
- Hyperoedipus plumosus*
- Nicholisia kasheena*
- Philabipogon polyarthrus*
- Philabipogon n. sp.*
- Neophratocetus assimilis*
- Phreatocetus typicus*
- Phreatocetus orarii*
- Amphipogon pearsoni*
- Mezocarcinotelson setosus*
- Mezocarcinotelson tasmaniae*
- Phreatotelson rufus*
- Metaphreatotelson magisteri*
- Colobotelson* sp. 1
- Colobotelson* sp. 2
- Colobotelson frontalis*
- Metaphreatotelson affinis*
- Oncotelson spatulatus*
- Oncotelson brevicaudatus*
- Colobotelson newi*
- Colobotelson pyneri*
- Cremocetus hamiltoni*
- Cremocetus burnieae*
- Cremocetus n. sp.*
- Metaphreatotelson* sp.
- Metaphreatotelson lucasae*
- Metaphreatotelson australis*
- Metaphreatotelson flexilis*
- Metaphreatotelson dunedensis*
- Isopogon aphyragensis*
- Gariwerdocus beehyensis*
- Gariwerdocus armatus*
- Gariwerdocus dooleymontis*

Phylogenetic tree of the genus *Amphiphius* based on 16S rDNA sequences. The tree shows relationships between various species, with bootstrap values indicated at the nodes. The species names are listed on the right side of the tree.

Species listed (from top to bottom):

- Amphiphius annectans*
- Amphiphius littoralis*
- Amphiphius palustris*
- Phreatonectes talipes*
- Phreatonectes sp. 4*
- Phreatonectes sp. 6*
- Platygyge subsp. n.*
- Amphiphius n. sp.*
- Amphiphius capensis*
- Amphiphius abbreviatus*
- Phreatonectes beei*
- Creniscus acivler*
- Atit. n. sp. 1*
- Atit. n. sp. 2*
- Synamphiphius ambiguus*
- Synamphiphius drosophila*
- Phreatonectes ruffae*
- Phreatonectes terricola*
- Atit. penicillatus*
- Phreatonectes wianantherensis*
- Phreatonectes lepidus*
- Phreatonectes obtusifrons*
- Phreatonectes forficatus*
- Atit. n. sp. 3*
- Phreatonectes intrator*
- Phreatonectes sp. A*
- Phreatonectes gracilis*
- Phreatonectes sp. Zeehan*
- Phreatonectes plumosus*
- Nicholletia kasheera*
- Phreatonectes n. sp.*
- Phreatonectes platyrrhinus*
- Atit. n. sp. 4*
- Carierwerdes kasheera*
- Carierwerdes turnerensis*
- Carierwerdes ingletensis*
- Notamphiphius dunedimensis*
- Notamphiphius flavus*
- Phreatonectes acuminatus*
- Phreatonectes ornai*
- Phreatonectes typicus*
- Creniscus hamiltoni*
- Creniscus burnieae*
- Creniscus n. sp.*
- Colubetodon forficatus*
- Metaphreatonectes magister*
- Metaphreatonectes relictus*
- Colubetodon sp. 1*
- Metaphreatonectes affinis*
- Metaphreatonectes sp.*
- Metaphreatonectes australis*
- Metaphreatonectes incertus*
- Colubetodon sp. 2*
- Colubetodon pyreni*
- Colubetodon n. sp.*
- Amphiphius pearsoni*
- Mesacanthobolus setosus*
- Mesacanthobolus bismarckiae*
- Oncotriton brevicaudatus*
- Oncotriton caudatus*