

Taxonomic Checklist of Amphibian taxa
included in the Appendices
at the 18th Meeting of the Conference of the Parties
(Geneva, August 2019)

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Accessed 5 May 2020 for species of the genera *Echinotriton* and
Paramesotriton; Accessed 5 May 2022 for species of the genus *Tylotriton*.

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Contents of this extract, prepared for CITES CoP19 by the Nomenclature Specialist for
Fauna:

Class Amphibia

Order Caudata

Family Salamandridae

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Echinotriton chinhaiensis (Chang 1932)

Echinotriton maxiquadratus Hou, Wu, Yang, Zheng, Yuan & Li 2014

Genus *Paramesotriton* Chang 1935

Paramesotriton aurantius Yuan, Wu, Zhou & Che 2016

Paramesotriton caudopunctatus (Liu & Hu 1973)

Paramesotriton chinensis (Gray 1859)

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Paramesotriton longliensis Li, Tian, Gu & Xiong 2008

Paramesotriton maolanensis Gu, Chen, Tian, Li & Ran 2012

Paramesotriton qixilingensis Yan, Zhao, Jiang, Hou, He, Murphy & Che
2014

Paramesotriton wulingensis Wang, Tian & Gu 2013

Paramesotriton yunwuensis Wu, Jiang & Hanken 2010

Paramesotriton zhijinensis Li, Tian & Gu 2008

Genus *Tylototriton* Anderson 1871

Tylototriton anguliceps Le, Nguyen, Nishikawa, Nguyen, Pham, Matsui, Bernardes & Nguyen 2015

Tylototriton anhuiensis Qian, Sun, Li, Guo, Pan, Kang, Wang, Jiang, Wu & Zhang 2017

Tylototriton asperrimus Unterstein 1930

Tylototriton broadoridgus Shen, Jiang & Mo 2012

Tylototriton dabienicus Chen, Wang & Tao 2010

Tylototriton daloushanensis Zhou, Xiao & Luo, 2022

Tylototriton hainanensis Fei, Ye & Yang 1984

Tylototriton himalayanus Khatiwada, Wang, Ghimire, Vasudevan, Paudel & Jiang 2015

Tylototriton kachinorum Zaw, Lay, Pawangkhanant, Gorin & Poyarkov 2019

Tylototriton kweichowensis Fang & Chang 1932

Tylototriton liuyangensis Yang, Jiang, Shen & Fei 2014

Tylototriton lizhengchangi Hou, Zhang, Jiang, Li & Lu 2012

Tylototriton maolanensis Li, Wei, Cheng, Zhang & Wang, 2020

Tylototriton ngarsuensis Grismer, Wood, Quah, Thura, Espinoza, Grismer, Murdoch & Lin 2018

Tylototriton notialis Stuart, Phimmachak, Sivongxay & Robichaud 2010

Tylototriton panhai Nishikawa, Khonsue, Pomchote & Matsui 2013

Tylototriton panwaensis Grismer, Wood, Quah, Thura, Espinoza, Grismer & Murdoch, 2019

Tylototriton pasmansi Bernardes, Le, Nguyen, Pham, Pham, Nguyen & Ziegler, 2020

Tylototriton phukhaensis Pomchote, Khonsue, Thammachoti, Hernandez, Peerachidacho, Suwannapoom., Onishi & Nishikawa, 2020

Tylototriton podichthys Phimmachak, Aowphol & Stuart 2015

Tylototriton pseudoverrucosus Hou, Gu, Zhang, Zeng & Lu 2012

Tylototriton pulcherrimus Hou, Zhang, Li & Lu, 2012

Tylototriton shanjing Nussbaum, Brodie & Yang 1995

Tylototriton shanorum Nishikawa, Matsui & Rao 2014

Tylototriton sini Lyu, Wang, Zeng, Zhou, Qi, Wan & Wang, 2021

Tylototriton sparreboomi Bernardes, Le, Nguyen, Pham, Pham, Nguyen & Ziegler, 2020

Tylototriton taliangensis Liu 1950

Tylototriton thaiorum Poyarkov, Nguyen & Arkhipov, 2021

Tylototriton tongziensis Li, Liu, Shi, Wei & Wang, 2021

Tylototriton umphangensis Pomchote, Peerachidacho, Hernandez, Sapewisut, Khonsue, Thammachoti & Nishikawa, 2021

Tylototriton uyenoii Nishikawa, Khonsue, Pomchote & Matsui 2013

Tylototriton verrucosus Anderson 1871

Tylototriton vietnamensis Böhme, Schöttler, Nguyen & Köhler 2005

Tylototriton wenxianensis Fei, Ye & Yang 1984

Tylototriton yangi Hou, Zhang, Zhou, Li & Lu 2012

Tylototriton zieglerei Nishikawa, Matsui & Nguyen 2013

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: Pleurodelinae

Contained taxa (16 genera, 104 sp.):

[Calotriton Gray, 1858](#) (2 sp.)

[Cynops Tschudi, 1838](#) (10 sp.)

[Echinotriton Nussbaum and Brodie, 1982](#) (3 sp.)

[Euproctus Gené, 1838](#) (2 sp.)

[Ichthyosaura Sonnini de Manoncourt and Latreille, 1801](#) (1 sp.)

[Laotriton Dubois and Raffaëlli, 2009](#) (1 sp.)

[Lissotriton Bell, 1839](#) (9 sp.)

[Neurergus Cope, 1862](#) (5 sp.)

[Notophthalmus Rafinesque, 1820](#) (3 sp.)

[Ommatotriton Gray, 1850](#) (3 sp.)

[Pachytriton Boulenger, 1878](#) (10 sp.)

[Paramesotriton Chang, 1935](#) (14 sp.)

[Pleurodeles Michahelles, 1830](#) (3 sp.)

[Taricha Gray, 1850](#) (4 sp.)

[Triturus Rafinesque, 1815](#) (9 sp.)

[Tylototriton Anderson, 1871](#) (25 sp.)

Genus *Echinotriton*

Echinotriton [Nussbaum and Brodie, 1982, Herpetologica, 38](#): 321. Type species: *Tylototriton andersoni* Boulenger, 1892, by original designation.

Contained taxa (3 sp.):

[Echinotriton andersoni \(Boulenger, 1892\)](#)

[Echinotriton chinhaiensis \(Chang, 1932\)](#)

[Echinotriton maxiquadratus Hou, Wu, Yang, Zheng, Yuan, and Li, 2014](#)

Echinotriton andersoni (Boulenger, 1892)

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Echinotriton](#) > Species: *Echinotriton andersoni*

Tylototriton Andersoni [Boulenger, 1892, Ann. Mag. Nat. Hist., Ser. 6, 10](#): 304. Holotype: BMNH 1947.9.5.89 (formerly 1892.7.14.50), according to XXX; BMNH 1892.9.3.30, according to [Brame, 1972, Checklist Living & Fossil Salamand. World \(Unpubl. MS\)](#): 112. Type locality: "Okinawa, or Great Loo Choo Island" (= Okinawa), Ryukyu Is., Japan.

Echinotriton andersoni — [Nussbaum and Brodie, 1982, Herpetologica, 38](#): 321; [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 44.

Tylototriton (Echinotriton) andersoni — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 16.

Pleurodeles (Tylototriton) andersoni — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4](#): 142.

Pleurodeles (Echinotriton) andersoni — [Dubois, 1987 "1986", Alytes, 5](#): 11.

English Names

Anderson's Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35).

Anderson's Crocodile Newt ([Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 601).

Ryukyu Spiny Newt ([Fei, 1999, Atlas Amph. China](#): 44).

Japanese Warty Newt ([Goris and Maeda, 2004, Guide Amph. Rept. Japan](#): 44).

Anderson's Salamander ([Sparreboom, 2014, Salamanders Old World](#): 199).

Distribution

Okinawa and Anami, Ryukyu Islands, Japan; old records from Mount Kuanyinshan, northern Taiwan, China.

Comment

Reviewed by [Sato, 1943, Monogr. Tailed Batr. Japan](#): 349-355. See also comments by [Zhao and Adler, 1993, Herpetol. China](#): 111. See brief account, figure, and map by [Fei, 1999, Atlas Amph. China](#): 44. [Goris and Maeda, 2004, Guide Amph. Rept. Japan](#): 44-46, provided an account (as *Tylotriton andersoni*), map, and photograph. [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 284-288, provided an account and range map for China. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 601. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 82-83, provided a brief account including photographs of specimens and habitat. [Honda, Matsui, Tominaga, Ota, and Tanaka, 2012, Mol. Phylogenet. Evol.](#), 65: 642-653, reported on strong inter-island genetic differentiation and molecular phylogeography. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 97, provided an account, photographs, and a map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 189, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 199-202, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 311-313, provided a brief account and implied that the record for Taiwan may be in error or the population extinct.

Echinotriton chinhaiensis (Chang, 1932)

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Echinotriton](#) > Species: *Echinotriton chinhaiensis*

Tylotriton chinhaiensis [Chang, 1932, Contrib. Biol. Lab. Sci. Soc., China, Zool. Ser.](#), 8: 201.

Holotype: Originally Biol. Lab. Sci. Soc. China Mus. No. H121, now lost; ZMNH 780381 designated neotype by [Cai and Fei, 1984, Acta Herpetol. Sinica, Chengdu, N.S.](#), 3 (1): 71-77. Type locality: "Chenwuan, Chinhai . . . , about 20 miles southeast to Ningpo, Chekiang [=Zhejiang]", China; neotype from "Ruiyansi (about 5 km from Chengwan), Zhenhai, Zhejiang [Province] alt. 140 m", China.

Echinotriton chinhaiensis — [Nussbaum and Brodie, 1982, Herpetologica](#), 38: 322; [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 44.

Tylotriton (*Echinotriton*) *chinhaiensis* — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 16.

Echinotriton chinhaiensis — [Cai and Fei, 1984, Acta Herpetol. Sinica, Chengdu, N.S., 3 \(1\): 71](#); [Zhao, 1990, in Zhao \(ed.\), From Water onto Land: 219](#).

Pleurodeles (Tylototriton) chinhaiensis — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4: 142](#).

Pleurodeles (Echinotriton) chinhaiensis — [Dubois, 1987 "1986", Alytes, 5: 11](#).

English Names

Chinai Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World: 35](#)).

Chinhai Spiny Newt ([Fei, 1999, Atlas Amph. China: 46](#)).

Chinhai Salamander ([Sparreboom, 2014, Salamanders Old World: 202](#)).

Distribution

Known only from the type locality and two nearby valleys east of the city of Ningbo (respectively Chengwan, Ruiyansi and Qiushan, district of Beilun, province of Zhejiang, China), where it inhabits a forest area 100–200 m elevation.

Comment

See accounts by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China 83](#); [Fei, 1999, Atlas Amph. China: 46](#), and [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.: 190](#). [Huang, 1990, Fauna Zhejiang, Amph. Rept.](#); 20–21, provided an account for Zhejiang. [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1: 288–294](#), provided an account and range map. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World: 601](#). [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#); 98–99, provided an account, photographs, and a map. [Sparreboom, 2014, Salamanders Old World: 202–206](#), reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1: 313–316](#), provided an account including photographs and range map.

Echinotriton maxiquadratus Hou, Wu, Yang, Zheng, Yuan, and Li, 2014

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Echinotriton](#) > Species: *Echinotriton maxiquadratus*

Echinotriton maxiquadratus [Hou, Wu, Yang, Zheng, Yuan, and Li, 2014, Zootaxa, 3895: 96](#). Holotype: SY20131101ENT, by original designation. Type locality: "under rocks on a mountain in southern China

English Names

Mountain Spiny Newt (original publication).

Distribution

Not stated beyond "a mountain in southern China" in an attempt to forestall the extinction of the population due to commercial collecting.

Comment

The sister taxon of *Echinotriton chinhaiensis* according to the original publication.

Paramesotriton Chang, 1935

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: *Paramesotriton*
14 species

Mesotriton [Bourret, 1934, Annexe Bull. Gen. Instr. Publique, Hanoi, 1934](#): 83. Type species: *Mesotriton deloustali* Bourret, 1934, by monotypy. Preoccupied by *Mesotriton* Bolkay, 1927.

Paramesotriton [Chang, 1935, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 2, 7](#): 95. Also published by [Chang, 1935, Bull. Soc. Zool. France, 60](#): 425. Replacement name for *Mesotriton* Bourret, 1934.

Trituroides [Chang, 1935, Bull. Soc. Zool. France, 60](#): 425. Type species: *Cynops chinensis* Gray, 1859, by monotypy. Synonymy (with *Paramesotriton*) by [Freytag, 1962, Mitt. Zool. Mus. Berlin, 38](#): 451-459.

Allomesotriton [Freytag, 1983, Zool. Abh. Staatl. Mus. Tierkd. Dresden, 39](#): 47. Type species: *Trituroides caudopunctatus* Liu and Hu, 1973, by original designation.

Allomesotriton — [Pang, Jiang, and Hu, 1992, in Jiang \(ed.\), Collect. Pap. Herpetol.](#): 89. Treatment as a subgenus of *Paramesotriton*.

Karstotriton [Fei and Ye, 2016, Amph. China, 1](#): 360. Type species: *Paramesotriton zhijinensis* Li, Tian, and Gu, 2008, by original designation. Coined as a subgenus of *Paramesotriton*.

English Names

Warty Newts ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35).

Distribution

Northern Vietnam and southwest-central and southern China.

Comment

See [Freytag, 1962, Mitt. Zool. Mus. Berlin, 38](#): 451. [Pang, Jiang, and Hu, 1992, in Jiang \(ed.\), Collect. Pap. Herpetol.](#): 89-100, reviewed the systematics of the group. [Chan, Zamudio, and Wake, 2001, Copeia, 2001](#): 997-1009, suggested that *Paramesotriton* is the sister taxon of *Pachytriton*. [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 323-336, also provided accounts. [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 44-45, provided a key to the species of China. [Lü, Yuan, Pang, Yang, Yu, McGuire, Xie, and Zhang, 2004, Biochem. Genet.](#), 42: 139-148, provided a phylogenetic analysis based on DNA sequence data. [Weisrock, Papenfuss, Macey, Litvinchuk, Polymeni, Uğurtaş, Zhao, Jowkar, and Larson, 2006, Mol. Phylogenet. Evol.](#), 41: 855-857, on the basis of DNA sequence evidence, found *Paramesotriton* to be in a monophyletic group with *Cynops* and *Pachytriton*. [Steinfartz, Vicario, Arntzen, and Caccone, 2007, J. Exp. Zool.](#), 308B: 139-142, found *Paramesotriton* to form the sister taxon of *Pachytriton*, and together imbedded within a paraphyletic *Cynops*. [Wu, Rovito, Papenfuss, and Hanken, 2009, Zootaxa, 2060](#): 59-68, provided a molecular phylogeny of the species in the genus. [Dubois and Raffaëlli, 2009, Alytes, 26](#): 48, partitioned out *Laotriton* to render *Paramesotriton* monophyletic, and recognized two subgenera (*Paramesotriton* and *Allomesotriton*). [Gu, Wang, Chen, Tian, and Li, 2012, Zootaxa, 3150](#): 59-68, found *Paramesotriton* to be monophyletic, the sister taxon of *Laotriton*, and the subgenera to be monophyletic as well. [Yuan, Zhao, Jiang, Hou, He, Murphy, and Che, 2014, Asian Herpetol. Res.](#), 5: 67-79, reported on the molecular phylogenetics of the taxon based on ND2 and its flanking tRNAs as well as providing a key to the species. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 158-

166, provided brief accounts of the species, range maps, and photographs. [Sparreboom, 2014, *Salamanders Old World*](#): 283–303, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, *Amph. China*, 1](#): 349–387, provided accounts, photographs, and range maps for the species of China.

Contained taxa (14 sp.):

[Paramesotriton aurantius Yuan, Wu, Zhou, and Che, 2016](#)

[Paramesotriton caudopunctatus \(Liu and Hu, 1973\)](#)

[Paramesotriton chinensis \(Gray, 1859\)](#)

[Paramesotriton deloustali \(Bourret, 1934\)](#)

[Paramesotriton fuzhongensis Wen, 1989](#)

[Paramesotriton guangxiensis \(Huang, Tang, and Tang, 1983\)](#)

[Paramesotriton hongkongensis \(Myers and Leviton, 1962\)](#)

[Paramesotriton labiatus \(Unterstein, 1930\)](#)

[Paramesotriton longliensis Li, Tian, Gu, and Xiong, 2008](#)

[Paramesotriton maolanensis Gu, Chen, Tian, Li, and Ran, 2012](#)

[Paramesotriton qixilingensis Yan, Zhao, Jiang, Hou, He, Murphy, and Che, 2014](#)

[Paramesotriton wulingensis Wang, Tian, and Gu, 2013](#)

[Paramesotriton yunwuensis Wu, Jiang, and Hanken, 2010](#)

[Paramesotriton zhijinensis Li, Tian, and Gu, 2008](#)

***Paramesotriton aurantius* Yuan, Wu, Zhou, and Che, 2016**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton aurantius*

***Paramesotriton aurantius* Yuan, Wu, Zhou, and Che, 2016, *Zootaxa*, 4205**: 556. Holotype: KIZ026210, by original designation. Type locality: "Jiulongjin, Zherong, Fujian Province, 27.20° N, 119.99° E, elevation 832 m", China. urn:lsid:zoobank.org:pub:D7A88CFD-D21F-474E-9115-412EA82A9BE9

Distribution

Fujian Province (Fuding, Ningde, and Putian counties), China.

Comment

In the *Paramesotriton chinensis* group, and the sister taxon of *Paramesotriton hongkongensis*, according to the original publication.

***Paramesotriton caudopunctatus* (Liu and Hu, 1973)**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton caudopunctatus*

Trituroides caudopunctatus Liu and Hu in [Hu, Zhao, and Liu, 1973, Acta Zool. Sinica, 19](#): 160. Holotype: CIB 63II0303, by original designation. Type locality: "Fang-xiang, Lei-shan Hsien, Kweichow [= Guizhou], altitude 1158 m", China.

Paramesotriton caudopunctatus — [Bischoff and Böhme, 1980, Salamandra, 16](#): 139.

Paramesotriton caudomaculatus [Seidel, 1981, Aquarium, Minder, 15](#): 481. Syntypes: ZFMK; ZFMK38536, 38663–64; ZFMK 38536 designated lectotype by [Böhme and Bischoff, 1984, Bonn. Zool. Monogr., 19](#): 174. Type locality: Not stated. Synonymy by [Böhme and Bischoff, 1984, Bonn. Zool. Monogr., 19](#): 174.

Allomesotriton caudopunctatus — [Freytag, 1983, Zool. Abh. Staatl. Mus. Tierkd. Dresden, 39](#): 47.

Paramesotriton (Allomesotriton) caudopunctatus — [Pang, Jiang, and Hu, 1992, in Jiang \(ed.\), Collect. Pap. Herpetol.](#): 89; [Dubois and Raffaëlli, 2009, Alytes, 26](#): 49.

English Names

Guizhou Warty Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35).

Spot-tailed Warty Newt ([Fei, 1999, Atlas Amph. China](#): 46).

Distribution

Southwestern Hunan and northeastern Guangxi (Fuchuan), China, 500–1800 m elevation.

Comment

Related to *Paramesotriton chinensis* (as *Trituroides chinensis*), according to the original publication. See accounts by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 87; [Fei, 1999, Atlas Amph. China](#): 46; and [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 334–336. [Zhang and Wen, 2000, Amph. Guangxi](#): 26, provided an account for population in Guangxi, China. The sole member of the *Paramesotriton caudopunctatus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 44 (although they only addressed Chinese species). [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 295–301, provided an account for China. See statement of geographic range, habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 642. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 84, provided a brief account including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 109, provided an account, photographs, and map. Specimens from Wuling Mountains, Chongqing, China are now assigned to *Paramesotriton wulingensis*. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 165, provided a brief account, photograph, and range map. [Sparreboom, 2014, Salamanders Old World](#): 283–286, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Shen, 2014, Fauna Hunan, Amph.](#): 63–67, provided an account.

Paramesotriton chinensis (Gray, 1859)

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton chinensis*

Cynops chinensis [Gray, 1859, Proc. Zool. Soc. London, 1859](#): 229. Syntypes: Not stated but BMNH 1947.9.6.14-15 (formerly 59.11.18.8-9) by museum records; BMNH 1947.9.6.15 designated lectotype by [Myers and Leviton, 1962, Occas. Pap. Div. Syst. Biol. Stanford Univ., 10](#): 1. Type locality: "River N. E. Coast of China, inland from Ningpo", China.

Triton chinensis — [Strauch, 1870, Mem. Acad. Imp. Sci. St. Petersburg, Ser. 7, 16 \(4\)](#): 51.

Triton sinensis — [Sauvage, 1876, L'Institut, Paris, N.S., 4](#): 274. Incorrect subsequent spelling.

Molge sinensis — [Boulenger, 1882, Cat. Batr. Grad. Batr. Apoda Coll. Brit. Mus., Ed. 2](#): 20.

Diemictylus sinensis — [Stejneger, 1907, Bull. U.S. Natl. Mus., 58](#): 20.

Triturus sinensis — [Dunn, 1918, Bull. Mus. Comp. Zool., 62](#): 448.

Triton (Cynops) chinensis — [Wolterstorff, 1925, Abh. Ber. Mus. Nat. Heimatkd. Magdeburg, 4](#): 292. Based on *Paramesotriton hongkongensis* according to XXX.

Cynops chinensis — [Wolterstorff and Herre, 1935, Arch. Naturgesch., Leipzig, N. F., 4](#): 224.

Trituroides chinensis — [Chang, 1935, Bull. Soc. Zool. France, 60](#): 425; [Chang, 1936, Contr. Etude Morphol. Biol. Syst. Amph. Urodeles Chine](#): 106.

Triturus sinensis boringi [Herre, 1939, Abh. Ber. Mus. Nat. Heimatkd. Magdeburg, 7](#): 84-85. Holotype: MM; destroyed in W.W.II. Type locality: "Linhai" (= Taichow), Zhejiang Province, China.

Triturus chinensis — [Pope and Boring, 1940, Peking Nat. Hist. Bull., 15](#): 23.

Paramesotriton chinensis — [Freytag, 1962, Mitt. Zool. Mus. Berlin, 38](#): 451-459.

Trituroides chinensis — [Sichuan Biological Research Institute, 1977, Syst. Key Chinese Amph.](#): 14.

Paramesotriton chinensis chinensis — [Fei, Ye, and Huang, 1990, Key to Chinese Amph.](#): 61-62; [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 90.

Triturus sinensis boringae — [Michels and Bauer, 2004, Bonn. Zool. Beitr., 52](#): 84. Unjustified emendation according to [Dubois, 2007, Zootaxa, 1550](#): 67.

Paramesotriton (Paramesotriton) chinensis — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 49, 65.

English Names

Chinese Warty Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35; [Fei, 1999, Atlas Amph. China](#): 48).

Chinese Newt ([Ananjeva, Borkin, Darevsky, and Orlov, 1988, Dict. Amph. Rept. Five Languages](#): 32).

Distribution

Zhejiang and west and south into Anhui to northeastern Jiangxi and northern Fujian, China, 200 to 1200 m elevation.

Comment

See accounts by [Karsen, Lau, and Bogadek, 1986, Hong Kong Amph. Rept.](#): 15; [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 88; [Fei, 1999, Atlas Amph. China](#): 48; and [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 324-325. [Huang, 1990, Fauna Zhejiang, Amph. Rept.](#): 22-23, provided an account (as *Trituroides chinensis*) for Zhejiang. In the *Paramesotriton chinensis* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 45 (although they only addressed Chinese species). [Raffaëlli, 2007, Les Urodèles du Monde](#): 130, provided a brief account, figure, and map. [Wu, Rovito, Papenfuss, and Hanken, 2009, Zootaxa, 2060](#): 59-68, noted that the Guangxi population of *Paramesotriton chinensis* is now referred to *Paramesotriton ermizhaoi* (this population having now been placed into the synonymy of *Paramesotriton labiatus*). [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 86-87, provided a brief account including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 112, provided an account, photographs, and map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 158-159, provided a brief account, range map, and photograph and noted that records from Guangxi, China, are referable to *Paramesotriton longliensis* and *Paramesotriton zhijinensis*. [Sparreboom, 2014, Salamanders Old World](#): 286-288, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 372-375, provided an account, photograph, and range map. [Li, 2011, Amph. Rept. Guangdong](#): 17, provided a brief account for Guangdong, China, and photograph.

***Paramesotriton deloustali* (Bourret, 1934)**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton deloustali*

Mesotriton deloustali [Bourret, 1934, Annexe Bull. Gen. Instr. Publique, Hanoi, 1934](#): 84. Syntypes: Not stated; LZUH 226, 228, 257, and 287 according to [Brame, 1972, Checklist Living & Fossil Salamand. World \(Unpubl. MS\)](#): 66; these now MNHNP 1935.119, and possibly MNHNP 1935.120, 1948.110-111 according to [Thireau, 1986, Cat. Types Urodeles Mus. Natl. Hist. Nat., Rev. Crit.](#): 28-29; [Guibé, 1950 "1948", Cat. Types Amph. Mus. Natl. Hist. Nat.](#): 9, reported MNHNP 1935.119 as a 'paratype'. [Bour, Ohler, and Dubois, 2009, Alytes, 26](#): 153-166, discussed the tortured literature history and related errors and concluded that MNHNP 1935.119-120 and 1948.110 are unquestionably syntypes of which they designated 1935.119 as lectotype. Type locality: "Tam-Dao, à 900 m d'altitude", Tonkin, Vietnam; corrected to "the torrent of the hill station of Tam Dao (. . .), province of Vinh Phuc, Vietnam (at an altitude of approximately 900 meters . . .)".

Pachytriton deloustali — [Chang, 1935, Bull. Mus. Natl. Hist. Nat. Paris, Ser. 2, 7](#): 95.

Paramesotriton deloustali — [Chang, 1935, Bull. Soc. Zool. France, 60](#): 425.

Paramesotriton (Paramesotriton) deloustali — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 49, 65.

English Names

Vietnam Warty Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35).

Tam Dao Newt ([Ananjeva, Borkin, Darevsky, and Orlov, 1988, Dict. Amph. Rept. Five Languages](#): 33).

Vietnamese Salamander ([Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 9).

Tam Dao Salamander ([Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 605).

Tam Dao Warty Newt ([Sparreboom, 2014, Salamanders Old World](#): 288).

Distribution

Montane regions of northern Vietnam in the provinces of Lao Cai, Ha Giang, Tuyen Quang, Bac Kan, Quang Ninh and Vinh Phuc, 600–1900 m elevations; expected in adjacent Yunnan, China.

Comment

See accounts by [Bourret, 1942, *Batr. Indochine*](#): 148-150; and [Thorn and Raffaëlli, 2000, *Salamand. Ancien Monde*](#): 331-334. [Orlov, Murphy, Ananjeva, Ryabov, and Ho, 2002, *Russ. J. Herpetol.*, 9](#): 100, commented on the range. [Nguyen, Ho, and Nguyen, 2005, *Checklist Amph. Rept. Vietnam*](#): 147, provided a photograph. [Raffaëlli, 2007, *Les Urodèles du Monde*](#): 132-133, provided a brief account, figure, and map. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, *Threatened Amph. World*](#): 605. [Nguyen, Nguyen, Hò, Lê, and Nguyen, 2009, *Tap chí Công nghệ Sinh học*, 7](#): 325-333, reported on the species in Vietnam. [Raffaëlli, 2013, *Urodeles du Monde, 2nd ed.*](#): 161, provided a brief account, range map, and photograph and suggested that the population reported from Lao Cai, Vietnam, represents an unnamed species. [Sparreboom, 2014, *Salamanders Old World*](#): 288–290, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species.

Paramesotriton fuzhongensis Wen, 1989

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton fuzhongensis*

Paramesotriton fuzhongensis [Wen, 1989, *Chinese Herpetol. Res.*, 2](#): 15. Holotype: GXMU 81-021, by original designation. Type locality: "Gupo Hill, Wanggao (24°35'N 111°25'E), Zhongshan Xian (county), Guangxi Autonomous Region, China, altitude 400 m".

Paramesotriton (Paramesotriton) fuzhongensis — [Dubois and Raffaëlli, 2009, *Alytes*, 26](#): 49, 65.

English Names

Wanggao Warty Newt ([Frank and Ramus, 1995, *Compl. Guide Scient. Common Names Amph. Rept. World*](#): 35).

Fuzhong Warty Newt ([Fei, Ye, and Jiang, 2012, *Colored Atlas Chinese Amph. Distr.*](#): 110).

Distribution

Northeastern Guangxi (Zhongshan, Fuchuan, and Hexian counties) and Hunan (Daoxian and Jiangyong counties), China, 400–500 m elevation.

Comment

Similar to *Paramesotriton guanxiensis* according to the original publication. See accounts by [Thorn and Raffaëlli, 2000, *Salamand. Ancien Monde*](#): 326-328, and [Zhang and Wen, 2000, *Amph. Guangxi*](#): 29. [Lü, Yuan, Pang, Yang, Yu, McGuire, Xie, and Zhang, 2004, *Biochem. Genet.*, 42](#): 139-148,

provided molecular data in support of the distinctiveness of this species. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 605. [Gu, Wang, Chen, Tian, and Li, 2012, Zootaxa, 3150](#): 59-68, suggested that this species is closely related to *Paramesotriton guangxiensis*. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 111, provided an account, photographs, and map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 160, provided a brief account, range map, and photograph. [Sparreboom, 2014, Salamanders Old World](#): 290–292, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 375–378, provided an account, photograph, and range map. [Shen, 2014, Fauna Hunan, Amph.](#): 67–72 provided an account.

***Paramesotriton guangxiensis* (Huang, Tang, and Tang, 1983)**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton guangxiensis*

Trituroides guangxiensis [Huang, Tang, and Tang, 1983, Acta Herpetol. Sinica, Chengdu, N.S., 2 \(2\)](#): 37. Holotype: FU 81501, by original designation. Type locality: "Paiyang shan, Mingjiang People's Commune, Ningming County, Guangxi Zhuang Autonomous Region, altitude 478 m", China.

Trituroides guanxiensis [Huang, Tang, and Tang, 1983, Acta Herpetol. Sinica, Chengdu, N.S., 2 \(2\)](#): 37. Incorrect original spelling in English abstract.

Paramesotriton guangxiensis — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 10.

Paramesotriton guangxiensis — [Zhang and Wen, 2000, Amph. Guangxi](#): 28.

Paramesotriton (Paramesotriton) guangxiensis — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 49, 65.

English Names

Guangxi Warty Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35; [Fei, 1999, Atlas Amph. China](#): 50).

Guangxi Salamander ([Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 9).

Distribution

Fuchuan and Fangchen counties, southern Guangxi, China, 470 to 500 m elevation; northeastern part of Cao Bang Province, Vietnam.

Comment

Related to *Paramesotriton chinensis* (as *Trituroides chinensis*) according to the original publication. See comment under *Paramesotriton fuzhonensis*. See accounts by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 91, [Fei, 1999, Atlas Amph. China](#): 50; and [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 328-329. [Zhang and Wen, 2000, Amph. Guangxi](#): 28, provided an account (as *Paramesotriton guangxiensis*). [Orlov, Murphy, Ananjeva, Ryabov, and Ho, 2002, Russ. J. Herpetol., 9](#): 101, provided the Vietnam component of the range statement but did not cite voucher specimens. [Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 9, noted the Vietnamese locality as Nguyen Binh, Cao Bang. In the *Paramesotriton chinensis* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 45 (although they only addressed

Chinese species). [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 310-313, provided an account and range map. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 605. [Nguyen, Nguyen, Hô, Lê, and Nguyen, 2009, Tạp chí Công nghệ Sinh học, 7](#): 325-333, discussed the species in Vietnam. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 88, provided a brief account including photographs. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 110, provided an account, photographs, and map for China. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 161, provided a brief account, range map, and photograph. [Sparreboom, 2014, Salamanders Old World](#): 292–293, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 378–380, provided an account, photograph, and range map.

***Paramesotriton hongkongensis* (Myers and Leviton, 1962)**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton hongkongensis*

Trituroides hongkongensis [Myers and Leviton, 1962, Occas. Pap. Div. Syst. Biol. Stanford Univ., 10](#): 1. Holotype: CAS-SU 6378, by original designation. Type locality: "a mountain stream, on the Peak, Hong Kong Island", China.

Paramesotriton hongkongensis — [Freytag, 1962, Mitt. Zool. Mus. Berlin, 38](#): 451–459; [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 45.

Paramesotriton chinensis hongkongensis — [Fei, Ye, and Huang, 1990, Key to Chinese Amph.](#): 61–62; [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 90.

Paramesotriton (Paramesotriton) hongkongensis — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 49, 65.

English Names

Hong Kong Warty Newt ([Karsen, Lau, and Bogadek, 1986, Hong Kong Amph. Rept.](#): 15; [Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35; [Fei, 1999, Atlas Amph. China](#): 48).

Hong Kong Newt ([Ananjeva, Borkin, Darevsky, and Orlov, 1988, Dict. Amph. Rept. Five Languages](#): 33; [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 329).

Distribution

Northern (Huizhou and Logmen) central (Dongguan) and coastal Guangdong adjacent to and including Hongkong, 270–940 m elevation.

Comment

Removed from the synonymy of *Paramesotriton chinensis* by [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 45, where it had been placed by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 90. See account by [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 329-331. [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 306-310, provided an account and range map. See statement of geographic range, habitat, and conservation status (for nominal *Paramesotriton hongkongensis*) in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young](#).

[2008, Threatened Amph. World](#): 642. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 85, provided a brief account including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 114-115, provided an account, photographs, and map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 159–160, provided a brief account, range map, and photograph. [Sparreboom, 2014, Salamanders Old World](#): 293–296, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Jono, Nishikawa, Ding, and Tang, 2014, Herpetol. Rev., 651](#): 651, provided a range extension to Longyandong Forest Park in Dongguan, Guangdong, China, and briefly discussed the range. [Fei and Ye, 2016, Amph. China, 1](#): 380–383, provided an account, photograph, and range map. [Li, 2011, Amph. Rept. Guangdong](#): 18, provided a brief account for Guangdong, China, and photograph.

***Paramesotriton labiatus* (Unterstein, 1930)**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton labiatus*

Molge labiatum [Unterstein, 1930, Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1930](#): 313. Syntypes: ZMB (4 specimens); ZMB 34087 considered holotype by [Bauer, Good, and Günther, 1993, Mitt. Zool. Mus. Berlin, 69](#): 296. Type locality: "Kwangsi" (= Guangxi), China. [Fan, 1931, Bull. Dept. Biol. Coll. Sci. Sun Yatsen Univ., 11](#): 2, describing the expedition from whence the types came noted that "The main place from where the great majority of our specimens were secured, was a village named Loshiang () It is surrounded by lofty peaks no less than 3,000 ft. Streams run here and there through the jungles of a typical subtropical character" So, most likely the types came from Loshiang or its vicinity. [Bauer, Good, and Günther, 1993, Mitt. Zool. Mus. Berlin, 69](#): 296, noted that data with the holotype were "Yao Shan [= Mt. Yao], Kwangsi Prov. [= Guangxi Zhuang Autonomous Region], China".

Pachytriton brevipes labiatus — [Hu, Zhao, and Liu, 1973, Acta Zool. Sinica, 19](#): 149–178. Presumably based on specimens of *Pachytriton inexpectatus*.

Pachytriton labiatus — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 10. Presumably based on specimens of *Pachytriton inexpectatus*.

Pachytriton labiatus — [Zhao, Hu, Jiang, and Yang, 1988, Studies on Chinese Salamanders](#): 16-18; [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 46. Presumably based on specimens of *Pachytriton inexpectatus*.

Paramesotriton ermizhaoi [Wu, Rovito, Papenfuss, and Hanken, 2009, Zootaxa, 2060](#): 64. Holotype: CIB 88141, by original designation. Type locality: "Mt. Dayao (24°07'N, 110°13'E, 881m elevation), Jinxiu Yao Autonomous County, Guangxi Zhuang Autonomous Region, P. R. China". Synonymy by [Nishikawa, Jiang, Matsui, and Mo, 2011, Zool. Sci., Tokyo, 28](#): 458.

Paramesotriton labiatus — [Nishikawa, Jiang, Matsui, and Mo, 2011, Zool. Sci., Tokyo, 28](#): 457.

Paramesotriton (Paramesotriton) labiatus — [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 163.

English Names

Unterstein's Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35).

Spotless Smooth Warty Newt ([Sparreboom, 2014, Salamanders Old World](#): 296).

Distribution

Known from Mount Dayao, Jinxiu and Longshen counties, Guangxi, China, 880 to 1300 m elevation.

Comment

Confused with *Paramesotriton chinensis* previous to its recognition according to the original publication. [Zhang and Wen, 2000, Amph. Guangxi](#): 27, provided an account for this species (as *Paramesotriton chinensis*) in Guangxi, China. [Nishikawa, Jiang, Matsui, and Mo, 2011, Zool. Sci., Tokyo](#), 28: 453-461, discovered a confusing situation where most of what had been referred to as the northeastern population of *Pachytriton labiatus* should have the name *Pachytriton granulosus* applied; the southwestern population of former *Pachytriton labiatus* was a distinct species, which they name *Pachytriton inexpectatus*, and the types of nominal *Pachytriton labiatus* were conspecific with what had been named *Paramesotriton ermizhaoi* and not with the populations that had had the name *Pachytriton labiatus* applied for so long. All literature prior to 2011 should be used with great caution because of this. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 163, provided a brief account, range map, and photograph. [Sparreboom, 2014, Salamanders Old World](#): 296-297, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China](#), 1: 383-385, provided an account, photograph, and range map.

Paramesotriton longliensis Li, Tian, Gu, and Xiong, 2008

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton longliensis*

Paramesotriton longliensis [Li, Tian, Gu, and Xiong, 2008, Zool. Res., Kunming](#), 29: 313. Holotype: LTHC 0705015, by original designation. Type locality: Shuichang village, Longli County, Guizhou Province, 26°26'57.4N, 107°00'0.1E, China, 1142 m elevation.

Paramesotriton (*Paramesotriton*) *longliensis* — [Dubois and Raffaëlli, 2009, Alytes](#), 26: 49, 65.

Paramesotriton (*Allomesotriton*) *longliensis* — [Gu, Wang, Chen, Tian, and Li, 2012, Zootaxa](#), 3150: 59.

Paramesotriton (*Karstotriton*) *longliensis* — [Fei and Ye, 2016, Amph. China](#), 1: 362.

English Names

Longli Warty Newt ([Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 116).

Distribution

Hubei (Xianfeng), Chongqing (Youyang), and Guizhou (Longli and Suiyang), China, at 1100 to 1200 m elevation.

Comment

[Fei, Hu, Ye, and Huang, 2009, Fauna Sinica, Amph.](#) 3: 1620-1625, provided an account, figures, and range map. [Wu, Jiang, and Hanken, 2010, Zootaxa](#), 2494: 55-56, reported a population from near

Shizilu village, Xianfeng county, Hubei, China. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 89, provided a brief account including photographs. [Gu, Wang, Chen, Tian, and Li, 2012, Zootaxa, 3150](#): 59-68, transferred this species to *Allomesotriton*, the former *Paramesotriton caudopunctatus* group. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 116, provided an account, photographs, and map. [Raffaelli, 2013, Urodeles du Monde, 2nd ed.](#): 165, provided a brief account, photograph, and range map. [Sparreboom, 2014, Salamanders Old World](#): 298–299, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 362–364, provided an account, photograph, and range map.

***Paramesotriton maolanensis* Gu, Chen, Tian, Li, and Ran, 2012**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton maolanensis*

Paramesotriton (Allomesotriton) maolanensis [Gu, Chen, Tian, Li, and Ran, 2012, Zootaxa, 3510](#): 41. Holotype: GZNU 2006030001, by original designation. Type locality: "Wengang, 25° 40' N 107° 53' E, 817m a.s.l., Libo County, Guizhou Province, P. R. China".

Paramesotriton (Karstotriton) maolanensis — [Fei and Ye, 2016, Amph. China, 1](#): 364.

English Names

Maolan Warty Newt ([Sparreboom, 2014, Salamanders Old World](#): 299).

Distribution

Known currently only from the Maolan National Nature Reserve in Libo County in southern Guizhou, China.

Comment

Suggested to be the sister taxon of *Paramesotriton longliensis* in the original publication. [Sparreboom, 2014, Salamanders Old World](#): 299–300, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 364–366, provided an account, photograph, and range map.

***Paramesotriton qixilingensis* Yan, Zhao, Jiang, Hou, He, Murphy, and Che, 2014**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton qixilingensis*

Paramesotriton qixilingensis [Yuan, Zhao, Jiang, Hou, He, Murphy, and Che, 2014, Asian Herpetol. Res., 5](#): 72. Holotype. KIZ 022289, by original designation. Type locality: "Mt. Shenyuan, Qixiling Nature Reserve, Yongxin county, Ji'an, Jiangxi, China (26.75° N, 114.17° E; elevation 194 m)".

Distribution

Known only from the type locality in the Qixing Nature Reserve, Mount Shenyuan, Yongxin County, Ji'an, Jiangxi, China, 1924 m elevation.

Comment

The sister taxon of *Paramesotriton chinensis* according to the original publication.

Paramesotriton wulingensis Wang, Tian, and Gu, 2013

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton wulingensis*

Paramesotriton wulingensis Wang, Tian, and Gu, 2013, *Acta Zootaxon. Sinica*, 38: XXX. Holotype: LPS 20110719, by original designation. Type locality: Youyang, Chongqing, China (29° 18' N, 108° 57' E).

Paramesotriton (*Paramesotriton*) *wulingensis* — [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 164.

English Names

Wuling Warty Newt ([Sparreboom, 2014, Salamanders Old World](#): 300).

Distribution

Wuling mountains of southeastern Chongqing and eastern Guizhou, presumably into extreme western Hunan, China, 500–1800 m elevation.

Comment

Confused with *Paramesotriton caudopunctatus* according to the original publication. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 164, provided a brief account, range map, and photograph. [Sparreboom, 2014, Salamanders Old World](#): 300–301, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Zhang, 2017, Amph. Rept. Fanjing Mts.](#): 37–42, provided taxonomic and natural history information for the Fanjing Mountains of northeastern Guizhou, China.

Paramesotriton yunwuensis Wu, Jiang, and Hanken, 2010

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton yunwuensis*

Paramesotriton yunwuensis [Wu, Jiang, and Hanken, 2010, Zootaxa, 2494](#): 51. Holotype: CIB 97854, by original designation. Type locality: "pool along a montane stream (22° 37' N, 111° 10' E; 525 m elevation) near Nanchong village, Fuhe, Luoding city, Guangdong province, P. R. China".

Paramesotriton (Paramesotriton) yunwuensis — [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 162.

English Names

Yunwu Warty Newt ([Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 118).

Distribution

Montane streams of Yunwe Mountains, Luoding, Guangdong Province, China.

Comment

[Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 118–119, provided an account, photographs, and map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 162–163, provided a brief account, range map, and photograph. [Sparreboom, 2014, Salamanders Old World](#): 301–302, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 386–388, provided an account, photograph, and range map.

Paramesotriton zhijinensis Li, Tian, and Gu, 2008

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Paramesotriton](#) > Species: *Paramesotriton zhijinensis*

Paramesotriton zhijinensis [Li, Tian, and Gu, 2008, Acta Zootaxon. Sinica, 33](#): 410. Holotype: LTHC0705123, by original designation. Type locality: "Shuangyantang, Zhijin County, Guizhou Province (26° 39' N, 105° 45' E) with an elevation of 1310 m". (April publication data—DRF.)

Paramesotriton zhijinensis [Zhao, Che, Zhou, Chen, Zhao, and Zhang, 2008, Zootaxa, 1775](#): 56. Holotype: BJC 20070129001, by original designation. Type locality: "Shuangyan Pond (26°40' N 105°46' E), 1310 m, Zhijin County, Guizhou Province, P. R. China". (May publication date—DRF.)

Paramesotriton (Paramesotriton) zhijinensis — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 49, 65.

Paramesotriton (Allomesotriton) zhijinensis — [Gu, Wang, Chen, Tian, and Li, 2012, Zootaxa, 3150](#): 59.

Paramesotriton (Karstotriton) zhiinensis — [Fei and Ye, 2016, Amph. China, 1](#): 362.

English Names

Zhijin Warty Newt ([Sparreboom, 2014, Salamanders Old World](#): 302).

Distribution

Known only from the type locality (Shuangyan Pond, 1310 m elevation, Zhijin County, Guizhou Province, China).

Comment

There is ambiguity as to what the publication with priority is. The stated publication data of the Zhao et al paper is May and that of the Li et al. paper is April, but what the *actual* date of distribution to libraries of record is is unknown (DRF). [Fei, Hu, Ye, and Huang, 2009, Fauna Sinica, Amph. 3](#): 1616-1620, provided an account, figures, and range map. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 90, provided a brief account including photographs. [Gu, Wang, Chen, Tian, and Li, 2012, Zootaxa, 3150](#): 59-68, transferred this species to *Allomesotriton*, the former *Paramesotriton caudopunctatus* group. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 117, provided an account, photographs, and map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 166, provided a brief account, photograph, and range map. [Sparreboom, 2014, Salamanders Old World](#): 302–303, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 367–369, provided an account, photograph, and range map.

Class: [Amphibia](#)
Order: [Caudata](#)
Family: [Salamandridae](#)
Subfamily: [Pleurodelinae](#)

Tylototriton Anderson, 1871

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: *Tylototriton*
36 species

Tylototriton [Anderson, 1871, Proc. Zool. Soc. London, 1871](#): 423. Type species: *Tylototriton verrucosus* Anderson, 1871, by monotypy.

Triturus (*Tylototriton*) — [Boulenger, 1878, Bull. Soc. Zool. France, 3](#): 308.

Tylotriton — [Boettger, 1885, Ber. Offenbach. Ver. Naturkd., 24–25](#): 165. Incorrect subsequent spelling.

Yaotriton [Dubois and Raffaëlli, 2009, Alytes, 26](#): 59. Type species: *Tylototriton asperrimus* Unterstein, 1930, by original designation. Coined as a subgenus of *Tylototriton*.

Yaotriton — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 87. Treatment as a genus. See comment.

Qiantriton [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 78, 594. Type species: *Tylototriton kweichowensis* Fang and Chang, 1932, by original designation. Coined as a subgenus.

Liangshantriton [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#) : 44. Type species: *Tylototriton taliangensis* Liu, 1950.

Qianotriton — [Fei and Ye, 2016, Amph. China, 1](#): 284. Incorrect subsequent spelling.

English Names

Crocodile Newts ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 36).

Crocodile Salamanders ([Li, Zhao, and Dong, 2010, Amph. Rept. Tibet](#): 11).

Knobby Newts ([Fei and Ye, 2016, Amph. China, 1](#): 266).

Yao Knobby Newts (*Yaotriton*: [Fei and Ye, 2016, Amph. China, 1](#): 288).

Qian Newt (*Qiantriton*: [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 594).

Liangshan Warty Newts (*Liangshantriton*: [Fei and Ye, 2016, Amph. China, 1](#): 316).

Distribution

Sikkim, Darjeeling area in north-central India, and Nepal east and southeast to central China, non-peninsular Myanmar, non-peninsular Thailand, through Laos to the central and northern highlands of Vietnam, southern China, and Hainan Island.

Comment

See comments under *Echinotriton* and *Liangshantriton*. [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 41–42, provided a key to the species of China. [Weisrock, Papenfuss, Macey, Litvinchuk, Polymeni, Uğurtaş, Zhao, Jowkar, and Larson, 2006, Mol. Phylogenet. Evol.](#), 41: 855–857, on the basis of DNA sequence data found a monophyletic *Tylototriton* (in the sense of including *Yaotriton* and *Liangshantriton*) to be in a monophyletic group with *Echinotriton* and *Pleurodeles*. [Zhao, Rao, Liu, Li, and Yuan, 2012, J. W. China Forest. Sci.](#), 41: 85–89, provided an ND2 tree of the species. [Stuart, Phimmachak, Sivongxay, and Robichaud, 2010, Zootaxa](#), 2650: 19–32, as did [Yuan, Jiang, Lü, Yang, Nguyen, Nguyen, Jin, and Che, 2011, Zool. Res., Kunming](#), 32: 577–584, provided a molecular analysis of *Tylototriton asperrimus* group (= *Yaotriton*). [Shen, Jiang, and Mo, 2012, Asian Herpetol. Res., Ser. 2, 3](#): 2130, provided a molecular tree of the *Tylototriton asperrimus* group (= *Yaotriton*). [Gu, Chen, Wang, Tian, Chen, and Tian, 2012, Acta Zootaxon. Sinica](#), 37: 20–28, reported on the molecular phylogenetics of the *Tylototriton asperrimus* group as the subgenus *Yaotriton*. [Nishikawa, Matsui, and Nguyen, 2013, Curr. Herpetol., Kyoto](#), 32: 34–49, reported on an ND2 gene tree. [Nishikawa, Khonsue, Pomchote, and Matsui, 2013, Zootaxa](#), 3737: 261–279, reviewed the systematics of *Tylototriton*, noted the equivocal nature of the evidence for its monophyly, questioned the morphological evidence for the recognition of *Yaotriton* (which they treated as a synonym or subgenus of *Tylototriton*), named two new species and noted other populations that likely represent independent lineages. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 180–189, provided brief accounts, photographs, and range maps for the species. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 177–178, provided brief accounts, photographs, and range map. [Sparreboom, 2014, Salamanders Old World](#): 357–385, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 266–308, provided accounts (as *Tylototriton* and *Yaotriton*) for Chinese species; the recognition of *Yaotriton* as a genus was without comment regarding to studies that did not support recognition of this taxon. [Hernandez, 2016, Crocodile Newts](#), summarized the biology of the species. [Wang, Yuan, Zhong, Li, and Verrell, 2017, Amph. Rept. Conserv.](#), 11(2): 33–43, discussed the reproductive biology of the members of the *Tylototriton verrucosus* group. [Wang, Nishikawa, Matsui, Nguyen, Xie, Li, Khatiwada, Zhang, Gong, Mo, Wei, Chen, Shen, Yang, Xiong, and Jiang, 2018, PeerJ](#), 6(e4384): 1–29, reported on molecular phylogenetics and biogeography of the species of *Tylototriton*. [Han, Wu, Qian, Sun, Zhang, and Pan, 2018, MtDNA, Part B](#), 3: 1300–1301, provided a ML tree of the species. [Zaw,](#)

[Lay, Pawangkhanant, Gorin, and Poyarkov, 2019, Zool. Res., Kunming, 40: 1–24](#), reported on the molecular phylogenetics of the species. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935: 121–164](#), reported on the molecular phylogenetics of the *Tylototriton asperrimus* complex and provided range maps for all species, except for *Tylototriton phukhaensis*, unnamed at the time. [Dubois, Ohler, and Pyron, 2021, Megataxa, 5: 408](#), recognized *Yaotriton* as a genus without discussion although their exemplars did form a monophyletic group as the sister taxon of their *Tylototriton*; DRF refrains from change pending some sense of acceptance from the community of salamander taxonomists. [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10: 4–22](#), discussed molecular phylogenetics, treated *Yaotriton* as a subgenus, and delimited species groups. [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71: 697–710](#), rejected the use of subgenera and cast the species into three species groups, noted in the species records.

Contained taxa (36 sp.):

[Tylototriton anguliceps Le, Nguyen, Nishikawa, Nguyen, Pham, Matsui, Bernardes, and Nguyen, 2015](#)
[Tylototriton anhuiensis Qian, Sun, Li, Guo, Pan, Kang, Wang, Jiang, Wu, and Zhang, 2017](#)
[Tylototriton asperrimus Unterstein, 1930](#)
[Tylototriton broadoridgus Shen, Jiang, and Mo, 2012](#)
[Tylototriton dabienicus Chen, Wang, and Tao, 2010](#)
[Tylototriton daloushanensis Zhou, Xiao & Luo, 2022](#)
[Tylototriton hainanensis Fei, Ye, and Yang, 1984](#)
[Tylototriton himalayanus Khatiwada, Wang, Ghimire, Vasudevan, Paudel, and Jiang, 2015](#)
[Tylototriton kachinorum Zaw, Lay, Pawangkhanant, Gorin, and Poyarkov, 2019](#)
[Tylototriton kweichowensis Fang and Chang, 1932](#)
[Tylototriton liuyangensis Yang, Jiang, Shen, and Fei, 2014](#)
[Tylototriton lizhenchangi Hou, Zhang, Jiang, Li and Lu, 2012](#)
[Tylototriton maolanensis Li, Wei, Cheng, Zhang, and Wang, 2020](#)
[Tylototriton ngarsuensis Grismer, Wood, Quah, Thura, Espinoza, Grismer, Murdoch, and Lin, 2018](#)
[Tylototriton notialis Stuart, Phimmachak, Sivongxay, and Robichaud, 2010](#)
[Tylototriton panhai Nishikawa, Khonsue, Pomchote, and Matsui, 2013](#)
[Tylototriton panwaensis Grismer, Wood, Quah, Thura, Espinoza, and Murdoch, 2019](#)
[Tylototriton pasmansi Bernardes, Le, Nguyen, Pham, Pham, Nguyen, and Ziegler, 2020](#)
[Tylototriton phukhaensis Pomchote, Khonsue, Thammachoti, Hernandez, Peerachidacho, Suwannapoom, Onishi, and Nishikawa, 2020](#)
[Tylototriton podichthys Phimmachak, Aowphol, and Stuart, 2015](#)
[Tylototriton pseudoverrucosus Hou, Gu, Zhang, Zeng, and Lu, 2012](#)
[Tylototriton pulcherrimus Hou, Zhang, Li, and Lu, 2012](#)
[Tylototriton shanjing Nussbaum, Brodie, and Yang, 1995](#)
[Tylototriton shanorum Nishikawa, Matsui, and Rao, 2014](#)
[Tylototriton sini Lyu, Wang, Zeng, Zhou, Qi, Wan, and Wang, 2021](#)
[Tylototriton sparreboomi Bernardes, Le, Nguyen, Pham, Pham, Nguyen, and Ziegler, 2020](#)

[Tylotriton taliangensis Liu, 1950](#)
[Tylotriton thairum Poyarkov, Nguyen, and Arkhipov, 2021](#)
[Tylotriton tongziensis Li, Liu, Shi, Wei, and Wang, 2022](#)
[Tylotriton umphangensis Pomchote, Peerachidacho, Hernandez, Sapewisut, Khonsue, Thammachoti, and Nishikawa, 2021](#)
[Tylotriton uyanoi Nishikawa, Khonsue, Pomchote, and Matsui, 2013](#)
[Tylotriton verrucosus Anderson, 1871](#)
[Tylotriton vietnamensis Böhme, Schöttler, Nguyen, and Köhler, 2005](#)
[Tylotriton wenxianensis Fei, Ye, and Yang, 1984](#)
[Tylotriton yangi Hou, Zhang, Zhou, Li, and Lu, 2012](#)
[Tylotriton ziegleri Nishikawa, Matsui, and Nguyen, 2013](#)

***Tylotriton anguliceps* Le, Nguyen, Nishikawa, Nguyen, Pham, Matsui, Bernardes, and Nguyen, 2015**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton anguliceps*

Tylotriton anguliceps [Le, Nguyen, Nishikawa, Nguyen, Pham, Matsui, Bernardes, and Nguyen, 2015, Curr. Herpetol., Kyoto, 34](#): 45. Holotype: HNUE A.I.1.109, by original designation. Type locality: "Muong Nhe Nature Reserve, Muong Nhe District, Dien Bien Province, Vietnam (22° 18.580' N, 102° 11.026' E, elevation 1704 m asl)".

English Names

Angular-headed Newt (original publication).

Angular-headed Corcodile [sic] Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\)](#): 66).

Distribution

Chiang Mai, Chiang Rai, and Nan provinces, Thailand; Phou Ya Kaho, Viengphoukha District, Luang Namtha Province, Laos; and Muong Nhe, Dien Bien Province, and Thuan Chau, Son La Province, northern Vietnam; presumably in adjacent southwestern Yunnan, China.

Comment

Nested within the clade comprised of *Tylotriton uyanoi*, *Tylotriton shanjing*, *Tylotriton verrucosus*, and *Tylotriton yangi*, according to the original publication. See brief account by [Phimmachak, Aowphol, and Stuart, 2015, Zootaxa, 4006](#): 297–299, who provided the Laos locality. [Hernandez, Escoriza, Pomchote, and Hou, 2019, Herpetol. Bull., London, 147](#): 15–18, provided a record from Chiang Mai province, Thailand, and discussed the habitat and range. [Niyomwan, Srisom, and Pawangkhanant, 2019, Field Guide Amph. Thailand](#): 92–93, provided a brief account (photograph, habitat, and range) for Thailand (in Thai). [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. [Makchai, Chuaynkern, Safoowong, Chuachat, and Cota, 2020, Amph. N. Thailand](#): 185, provided photographs, a brief account for Thailand, and a range map. [Makchai, Chuaynkern, Safoowong, Chuachat, and Cota, 2020, Amph. N. Thailand](#): 185, provided photographs, a brief account for Thailand, and a range map. [Hernandez and Pomchote, 2020, Herpetol. Notes, 13](#): 993–996, reported

the species from Khun Chae National Park, Chiang Rai Province, Thailand, and discussed the range in Thailand. In the *Tylototriton* (*Tylototriton*) *verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylototriton anhuiensis* Qian, Sun, Li, Guo, Pan, Kang, Wang, Jiang, Wu, and Zhang, 2017**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton anhuiensis*

Tylototriton anhuiensis [Qian, Sun, Li, Guo, Pan, Kang, Wang, Jiang, Wu, and Zhang, 2017, Asian Herpetol. Res., 8](#): 139. Holotype: AHU-13-EE-006, by original designation. Type locality: "Yaoluoping National Nature Reserve (N 30°59'22.19", E 116°06'13.66", at an elevation of 1166 m) in Yuexi county, Anhui province", P. R. China.

Tylototriton* (*Yaotriton*) *anhuiensis — [Han, Wu, Qian, Sun, Zhang, and Pan, 2018, MtDNA, Part B, 3](#): 1300.

English Names

None noted.

Distribution

Dabie Mountains of Anhui Province, P.D.R. China, at elevations of 1000 to 1200 m.

Comment

The sister taxon of *Tylototriton broadoridgus* + *Tylototriton dabienicus* and previously confused with *Tylototriton wenxianensis* according to the original publication. [Han, Wu, Qian, Sun, Zhang, and Pan, 2018, MtDNA, Part B, 3](#): 1300–1301, reported on the complete mitochondrial genome. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylototriton* (*Yaotriton*) *wenxianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylototriton asperrimus* Unterstein, 1930**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton asperrimus*

Tylotriton asperrimus [Unterstein, 1930, Sitzungsber. Ges. Naturforsch. Freunde Berlin, 1930](#): 314. Syntypes: ZMB (2 specimens); ZMB 34089 considered holotype (apparently in error) by [Bauer, Good, and Günther, 1993, Mitt. Zool. Mus. Berlin, 69](#): 298. Type locality: "Kwangsi"; corrected to "Yao Shan [= Mt. Yao], Kwangsi Prov. [= Guangxi Zhuang Autonomous Region], China" by [Bauer, Good, and Günther, 1993, Mitt. Zool. Mus. Berlin, 69](#): 298. [Fan, 1931, Bull. Dept. Biol. Coll. Sci. Sun Yatsen Univ., 11](#): 1–154, provided evidence that the type locality is or near to the town of Loshiang.

Tylotriton (Echinotriton) asperrimus — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 19.

Tylotriton asperrimus asperrimus — [Fei, Ye, and Yang, 1984, Acta Zool. Sinica, 30](#): 89.

Pleurodeles (Tylotriton) asperrimus asperrimus — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4](#): 142.

Pleurodeles (Echinotriton) asperrimus — [Dubois, 1987 "1986", Alytes, 5](#): 11.

Echinotriton asperrimus — [Zhao, 1990, in Zhao \(ed.\), From Water onto Land](#): 219; [Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 9.

Echinotriton asperrimus asperrimus — [Zhao and Adler, 1993, Herpetol. China](#): 112.

Tylotriton asperrimus — [Nussbaum, Brodie, and Yang, 1995, Herpetologica, 51](#): 265.

Tylotriton (Yaotriton) asperrimus — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68.

Yaotriton asperrimus — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 88; [Dubois, Ohler, and Pyron, 2021, Megatata, 5](#): 408.

English Names

Mount Yao Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 35).

Black Knobby Newt ([Fei, 1999, Atlas Amph. China](#): 40).

Granular Newt ([Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 9).

Distribution

Guangxi (Darongshan, Huanjiang, Longsheng, Xincheng, Yaoshan, Yulin, and Napo counties), and Guangdong (Xinyi County), China, 1320 to 1400 m elevation.

Comment

See accounts by [Fang and Chang, 1932, Sinensia, Nanking, 2](#): 117-121; [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 72; and [Fei, 1999, Atlas Amph. China](#): 40. See also [Liu, Hu, Fei, and Huang, 1973, Acta Zool. Sinica, 19](#): 394. [Deng and Yu, 1984, Acta Herpetol. Sinica, Chengdu, N.S., 3 \(2\)](#): 75-77, recognize a subspecies in Sichuan. [Nussbaum, Brodie, and Yang, 1995, Herpetologica, 51](#): 265, discussed reasons for transferring this species from *Echinotriton* to *Tylotriton*. [Zhang and Wen, 2000, Amph. Guangxi](#): 21, provided an account for population in Guangxi, China. [Bain and Nguyen, 2004, Am. Mus. Novit., 3453](#): 9, provided the record for Ha Giang Province, Vietnam (although these records may now be reassigned to another species). [Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 9, provided specific records for Vietnam and (p. 147) provided a photograph. In the *Tylotriton asperrimus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key](#)

[Chinese Amph.](#): 42 (although they only addressed Chinese species). [Böhme, Schöttler, Nguyen, and Köhler, 2005, Salamandra, 41](#):218-219, discussed previous confusion in Vietnam of *Tylototriton asperrimus* and *Tylototriton vietnamensis* and noted that the record for Tam Dao, northern Vietnam, may actually be referable to *Tylototriton hainanensis*. [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 257-261, provided an account. See statement of geographic range, habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 643. [Nguyen, Nguyen, Hồ, Le, and Nguyen, 2009, Tạp chí Công nghệ Sinh học, 7](#): 325-333, discussed the species in Vietnam. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 72-73, provided a brief account including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 88-89, provided an account, photographs, and a map that excluded Vietnam from the range. A record for Thuong Tien Nature Reserve, Hoa Binh Province, in northern Vietnam, reported by [Luu, Le, Do, Hoang, Nguyen, Bonkowski, and Ziegler, 2014, Herpetol. Notes, 7](#): 51-58. [Sparreboom, 2014, Salamanders Old World](#): 358-359, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 186-186, provided a brief account, photograph, and map. [Fei and Ye, 2016, Amph. China, 1](#): 292-294, provided an account (as *Yaotriton asperrimus*), photographs, and range map. [Li, 2011, Amph. Rept. Guangdong](#): 16, provided a brief account for Guangdong, China, and photograph. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121-164, excluded all records from Vietnam as referable to other species. Records from Libo County, Ghizhou Province, China are now referred to *Tylototriton maolanensis*. In the *Tylototriton (Yaotriton) asperrimus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4-22, who discussed phylogenetics. In the *Tylototriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697-710, who discussed phylogenetics.

***Tylototriton broadoridgus* Shen, Jiang, and Mo, 2012**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton broadoridgus*

Tylototriton broadoridgus [Shen, Jiang, and Mo, 2012, Asian Herpetol. Res., Ser. 2, 3](#): 26. Holotype: HNUL 840513527, by original designation. Type locality: "Liaoyewan in the Tianping Mountains (29° 49' N, 110° 9' E) in Sangzhi County, Hunan", China.

Tylototriton (Yaotriton) broadoridgus — [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14](#): 62.

Yaotriton broadoridgus — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 87.

English Names

Sangzhi Knobby Newt ([Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 87).

Distribution

Known from the type locality (Liaoyewan, Tianping Mountains, Sangzhi County, northern Hunan, China), from another locality in eastern Hunan, and from Wufeng, Hubei, China, 1000 to 1600 m elevation.

Comment

In the *Tylotriton asperrimus* group, similar to *Tylotriton wenxianensis*, according to the original publication (all now *Yaotriton*). [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 87, provided an account, photographs, and a map (which showed a new locality in eastern Hunan, China). [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 188, provided a brief account, photograph, and map. [Fei and Ye, 2016, Amph. China, 1](#): 295–297, provided an account (as *Yaotriton broadoridgus*), photographs, and range map. [Shen, 2014, Fauna Hunan, Amph.](#): 51–56, provided an account with illustrations and a map, as *Yaotriton broadoridgus*, focused on Hunan. [Sparreboom, 2014, Salamanders Old World](#): 359–360, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylotriton (Yaotriton) wenxianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobatica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton dabienicus* Chen, Wang, and Tao, 2010**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton dabienicus*

Tylotriton wenxianensis dabienicus [Chen, Wang, and Tao, 2010, Acta Zootaxon. Sinica, 35](#): 666. Holotype: HNNU 0908, by original designation. Type locality: "Huangbaishan National Forest Par of Henan Province, China (31° 24'N, 115° 20'E; alt. 698 m)".

Tylotriton dabienicus — [Shen, Jiang, and Mo, 2012, Asian Herpetol. Res., Ser. 2, 3](#): 26.

Yaotriton dabienicus — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 90.

Tylotriton (Yaotriton) dabienicus — [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 187.

English Names

Dabie Knobby Newt ([Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 90).

Distribution

Mount Dabien region of Henan and Anhui, China, 698–767 m elevation.

Comment

In the *Tylotriton asperrimus* group and the sister taxon of *Tylotriton wenxianensis* according to [Shen, Jiang, and Mo, 2012, Asian Herpetol. Res., Ser. 2, 3](#): 26 (now all *Yaotriton*). [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 90, provided an account, photographs, and a map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 187, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 360–361, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 298–300, provided an account (as *Yaotriton dabienicus*), photographs, and range map. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylotriton (Yaotriton) wenxianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobatica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton asperrimus* group

of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton daloushanensis* Zhou, Xiao & Luo, 2022**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton daloushanensis*

Tylotriton daloushanensis Zhou, Xiao & Luo in [Luo, Yan, Xiao, Wei, Deng, and Zhou, 2022, Zool. Syst., Beijing, 47](#): 73. Holotype: GZNU 20180806001, by original designation. Type locality: "Huoqiuba Nature Reserve, Suiyang, Guizhou, China, . . . (28.4805° N, 107.0764° E, elev. 1501 m; . . .)". urn:lsid:zoobank.org:pub:D500F784-FB70-41CE-B901-C3141147832D

English Names

Mt. Dalou's Knobby Newt (original publication).

Distribution

Known from Suiyang County, Guizhou, China, from two localities: (1) Huoqiuba Nature Reserve and (2) Kuankuoshui National Nature Reserve, at elevations of 900–1600 m.

Comment

In the subgenus *Yaotriton*, *Tylotriton wenxianensis* species group, according to the original publication, where comparative morphology, morphometrics, and molecular markers were detailed. The authors also discussed phylogenetics generally of *Tylotriton*, agreeing with other authors that the number of named species likely underestimates the true species diversity in China.

***Tylotriton hainanensis* Fei, Ye, and Yang, 1984**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton hainanensis*

Tylotriton hainanensis [Fei, Ye, and Yang, 1984, Acta Zool. Sinica, 30](#): 85-89. Holotype: CIB 64III1379, by original designation. Type locality: "Nalong, Wuzhi Shan, alt. 770 m", Hainan, China.

Pleurodeles (*Tylotriton*) *hainanensis* — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4](#): 142.

Pleurodeles (*Echinotriton*) *hainanensis* — [Dubois, 1987 "1986", Alytes, 5](#): 11.

Tylotriton (*Yaotriton*) *hainanensis* — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68.

Yaotriton hainanensis — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.:](#) 91; [Dubois, Ohler, and Pyron, 2021, Megataxa, 5:](#) 408.

English Names

Hainan Knobby Newt ([Fei, 1999, Atlas Amph. China:](#) 40).

Distribution

Biasha, Leong, Lingshui and Qiongzong, Hainan Island, China, 770–970 m elevation. See comment.

Comment

See accounts by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 74, and [Fei, 1999, Atlas Amph. China:](#) 40. Synonymy with *Tylototriton asperrimus* by [Zhao, Hu, Jiang, and Yang, 1988, Studies on Chinese Salamanders:](#) 63; this rejected by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 74. In the *Tylototriton asperrimus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.:](#) 42 (although they only addressed Chinese species). See comments under *Tylototriton* and *Tylototriton asperrimus*. [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1:](#) 261–265, provided an account. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World:](#) 607. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.:](#) 76, provided a brief account including photographs. [Shi, 2011, Amph. Rept. Fauna Hainan:](#) 36–38, provided an account. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.:](#) 91, provided an account, photographs, and a map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.:](#) 186, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World:](#) 361–362, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1:](#) 301–303, provided an account (as *Yaotriton hainanensis*), photographs, and range map. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935:](#) 121–164, provided a range map and mapped a population in western Guizhou, China, as *Tylototriton* cf. *hainanensis*, implying an unnamed species. In the *Tylototriton* (*Yaotriton*) *asperrimus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10:](#) 4–22, who discussed phylogenetics. In the *Tylototriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71:](#) 697–710, who discussed phylogenetics.

Tylototriton himalayanus Khatiwada, Wang, Ghimire, Vasudevan, Paudel, and Jiang, 2015

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton himalayanus*

Tylototriton (*Tylototriton*) *himalayanus* [Khatiwada, Wang, Ghimire, Vasudevan, Paudel, and Jiang, 2015, Asian Herpetol. Res., 6:](#) 251. Holotype NHMTU 17A-0098, by original designation. Type locality: "Mai Pokhari, Illam District, Mechi, eastern Nepal (27° 0' 25" N 87° 55' 48" E at an elevation of 2110 m)".

English Names

None noted.

Distribution

Illam District of Nepal, Darjeeling District of northwestern India, and western Bhutan.

Comment

Most closely related to *Tylototriton shanorum*, with which it was formerly confused, according to the original publication. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, implied in their map of species that the Bhutan population may be a distinct species. [Khatiwada, Wang, Zhao, Xie, and Jiang, 2021, Asian Herpetol. Res., 12](#): 1–35, discussed the genetics of the Nepal population. In the *Tylototriton (Tylototriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

Tylototriton kachinorum Zaw, Lay, Pawangkhanant, Gorin, and Poyarkov, 2019

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton kachinorum*

Tylototriton kachinorum [Zaw, Lay, Pawangkhanant, Gorin, and Poyarkov, 2019, Zool. Res., Kunming, 40](#): 161. Holotype: ZMMU A5953m by original designation. Type locality: "a swamp in a forest clearing surrounded by montane evergreen tropical forest, Ingyin Taung Mountain, Indawgyi Lake area, Mohnyin Township, Kachin State, Myanmar (approximate coordinates N25.09°, E96.28°; elevation 1 000 m a.s. l.)". urn:lsid:zoobank.org:act:FF992F77-436E-4164-A1C2-3EB8D220648F

English Names

Kachin Crocodile Newt (original publication).

Distribution

Known only from the vicinity of the type locality (Ingyin Taung Mountain, Kachin State, Myanmar at elevations from 900 to 1050 m).

Comment

The sister taxon of *Tylototriton himalayanus* according to the original publication. [Zaw, Yin, Chit, and Hmwe, 2020, Univ. Mandalay Res. J., 11](#): 59–72, characterized the population via morphometrics and molecular markers. In the *Tylototriton (Tylototriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool.,](#)

[Senckenberg, 71](#): 697–710, who discussed phylogenetics. [Zug, 2022, *Smithson. Contrib. Zool.*, 653](#): 6–7, discussed identification, habitat, and range in Myanmar.

***Tylotriton kweichowensis* Fang and Chang, 1932**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton kweichowensis*

Tylotriton kweichowensis [Fang and Chang, 1932, *Sinensia, Nanking*, 2](#): 112. Holotype: CIB 4664, by original designation. Type locality: "Kung-chi-shan, Dah-ting-hsien [Dading County,] Western Kweichow [Guizhou, China] . . . ; altitude about 2000 meters".

Tylotriton (Tylotriton) kweichowensis — [Zhao and Hu, 1984, *Stud. Chinese Tailed Amph.*](#): 19; [Dubois and Raffaëlli, 2009, *Alytes*](#), 26: 67.

Pleurodeles (Tylotriton) kweichowensis — [Risch, 1985, *J. Bengal Nat. Hist. Soc., N.S.*](#), 4: 141; [Dubois, 1987 "1986", *Alytes*](#), 5: 11.

Tylotriton (Qiantriton) kweichowensis — [Fei, Ye, and Jiang, 2012, *Colored Atlas Chinese Amph. Distr.*](#): 78.

Tylotriton (Qianotriton) kweichowensis — [Fei and Ye, 2016, *Amph. China*](#), 1: 286. Incorrect sequent spelling of subgeneric name.

English Names

Kweichow Crocodile Newt ([Frank and Ramus, 1995, *Compl. Guide Scient. Common Names Amph. Rept. World*](#): 36).

Red-tailed Knobby Newt ([Fei, 1999, *Atlas Amph. China*](#): 42).

Guizhou Crocodile Newt ([Sparreboom, 2014, *Salamanders Old World*](#): 362).

Distribution

Western Guizhou (Anlong, Bijie, Dafang, Hezhang, Jinsha, Nayong, Shuicheng, Weining, and Zhijin counties) and northeastern Yunnan (Daguan, Yililang, and Yongshan counties), China, 1400–2400 m elevation.

Comment

See account by [Liu, 1950, *Fieldiana, Zool. Mem.*](#), 2: 102-106; [Yang, 1991, *Amph. Fauna of Yunnan*](#): 31-33, [Ye, Fei, and Hu, 1993, *Rare and Economic Amph. China*](#) 76; [Fei, 1999, *Atlas Amph. China*](#): 42; and (as *Echinotriton asperrimus asperrimus*). [Thorn and Raffaëlli, 2000, *Salamand. Ancien Monde*](#): 238-238. In the *Tylotriton verrucosus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), *Illust. Key Chinese Amph.*](#): 42 (although they only addressed Chinese species). [Fei, Hu, Ye, and Huang, 2006, *Fauna Sinica, Amph. 1*](#): 268-272. [Raffaëlli, 2007, *Les Urodèles du Monde*](#): 146-147, provided a brief account, figure, and map. [Yang, 2008, in Yang and Rao \(ed.\), *Amph. Rept. Yunnan*](#): 17-18, provided a brief account for Yunnan, China. See photograph, map, description of geographic

range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 607. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 78-79, provided a brief account including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 78–79, provided an account, photographs, and a map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 183-184, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 362–364, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 286–288, provided an account, photographs, and range map. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylotriton (Tylotriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton liuyangensis* Yang, Jiang, Shen, and Fei, 2014**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton liuyangensis*

Tylotriton liuyangensis [Yang, Jiang, Shen, and Fei, 2014, Asian Herpetol. Res., 5](#): 4.

Holotype: HNUL 11053108, by original designation. Type locality: "Chuandiwo (28°25' N, 114°06' E, at an elevation of 1386 m) in Hunan Liuyang Daweishan Provincial Nature Reserve", Hunan, China.

Yaotriton liuyangensis — [Shen, 2014, Fauna Hunan, Amph.](#): 56.

English Names

None noted.

Distribution

Known only from two localities in the Hunan Liuyang Daweishan Provincial Nature Reserve, Hunan, China.

Comment

Most closely related to *Tylotriton wexianensis*, *Tylotriton broadoridgus*, and *Tylotriton dabienicus* according to the original publication. [Shen, 2014, Fauna Hunan, Amph.](#): 56–60, provided an account with illustrations and a map, as *Yaotriton liuyangensis*, focused on Hunan. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylotriton (Yaotriton) wexianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton lizhenchangi* Hou, Zhang, Jiang, Li and Lu, 2012**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton lizhenchangi*

Tylotriton (Yaotriton) lizhenchangi Hou, Zhang, Jiang, Li and Lu *In* [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14](#): 62. Holotype: SYNY HM20090501-NT001, by original designation. Type locality: China, Hunan, Mangshan National Nature Reserve.

Yaotriton lizhenchangi — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 92; [Dubois, Ohler, and Pyron, 2021, Megataxa, 5](#): 408.

English Names

Mangshan Crocodile Newt (original publication).

Distribution

Known only from the vicinity of the type locality (Mangshan National Nature Reserve, southern Hunan, China) at 952 to 1200 m elevation; into adjacent Guangdong.

Comment

[Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 92–93, provided an account, photographs, and a map. [Fei and Ye, 2016, Amph. China, 1](#): 303–305, provided an account (as *Yaotriton lizhenchangi*), photographs, and range map. [Shen, 2014, Fauna Hunan, Amph.](#): 60–63, provided an account (as *Yaotriton lizhenchangi*). [Sparreboom, 2014, Salamanders Old World](#): 364–365, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map, showing an extension into northern Guangdong, China, but not providing the collection localities that support this. In the *Tylotriton (Yaotriton) wenxianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton maolanensis* Li, Wei, Cheng, Zhang, and Wang, 2020**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton maolanensis*

Tylotriton maolanensis [Li, Wei, Cheng, Zhang, and Wang, 2020, Asian Herpetol. Res., 11](#): 286. Holotype: CIBML 20180427001, by original designation. Type locality: "Maolan National Nature Reserve (25.307194° N, 107.948764° E, ca. 737 m a.s.l.) in Libo County, Guizhou Province, China".

English Names

Maolan Knobby Newt (original publication).

Distribution

Known only from the type locality (Maolan National Nature Reserve, ca. 737 m elevation, Libo County, Guizhou Province, China).

Comment

Most closely related to *Tylototriton dabienicus*, *Tylototriton anhuiensis* and *Tylototriton broadoridgus*, and previously confused with *Tylototriton asperrimus* according to the original publication. In the *Tylototriton* (*Yaotriton*) *wenxianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

Tylototriton ngarsuensis Grismer, Wood, Quah, Thura, Espinoza, Grismer, Murdoch, and Lin, 2018

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton ngarsuensis*

Tylototriton ngarsuensis [Grismer, Wood, Quah, Thura, Espinoza, Grismer, Murdoch, and Lin, 2018, Zootaxa, 4500](#): 562. Holotype: LSUHC 13762, by original designation. Type locality: "Baw Hto Chang in Ngar Su Village, Ywangan Township, Taunggyi District, Shan State, Myanmar (21.15364° N, 96.43660°E WGS84) at 1212 m in elevation." <http://zoobank.org/urn:lsid:zoobank.org:pub:3518D551-CA4B-43A4-B6D3-8A159E2398E1>

English Names

Ywangan Crocodile Newt (original publication).

Ayeyarwady Crocodile Newt ([Zug, 2022, Smithson. Contrib. Zool., 653](#): 7)

Distribution

Vicinity of the type locality (Baw Hto Chang in Ngar Su Village, Ywangan Township, Taunggyi District, Shan State, Myanmar).

Comment

The sister taxon of nearby *Tylototriton shanorum* according to the original publication. See range map in [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164. In the *Tylototriton* (*Tylototriton*) *verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool.,](#)

[Senckenberg, 71](#): 697–710, who discussed phylogenetics. [Zug, 2022, *Smithson. Contrib. Zool.*, 653](#): 7, discussed identification, habitat, and range in Myanmar.

***Tylotriton notialis* Stuart, Phimmachak, Sivongxay, and Robichaud, 2010**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton notialis*

Tylotriton (Yaotriton) notialis [Stuart, Phimmachak, Sivongxay, and Robichaud, 2010, *Zootaxa*, 2650](#): 23. Holotype: FMNH 271121, by original designation. Type locality: "Laos, Khammouan Province, Boualapha District, Nakai-Nam Theun National Protected Area, Nam On River catchment, Phou Ak escarpment, 17° 38' 39.6" N 105° 44' 12.3" E (Fig. 4), 980 m elev."

Yaotriton notialis — [Dubois, Ohler, and Pyron, 2021, *Megataxa*, 5](#): 408.

English Names

Laos Knobby Newt ([Sparreboom, 2014, *Salamanders Old World*](#): 365).

Southern Corcodile [sic] Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, *Russ. J. Herpetol.*, 28 \(3A\)](#): 67).

Distribution

Khammouan Province, Laos, 980 to 1320 m elevation.

Comment

In the *Tylotriton asperrimus* group according to the original publication. [Yuan, Jiang, Lü, Yang, Nguyen, Nguyen, Jin, and Che, 2011, *Zool. Res.*, *Kunming*, 32](#): 57–58, suggested that *Tylotriton notialis* is a junior synonym of *Tylotriton asperrimus*, but this conclusion was based on fewer data than the original recognition of the species. [Raffaëlli, 2013, *Urodeles du Monde*, 2nd ed.](#): 186–187 provided a brief account, photograph, and map and documented the presence of this species in Vietnam, although only in provincial terms. [Nishikawa, Matsui, and Nguyen, 2013, *Curr. Herpetol., Kyoto*, 32](#): 34–49, provided records from Nghe An Province, Vietnam (see below). [Sparreboom, 2014, *Salamanders Old World*](#): 365–366, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. See brief account by [Phimmachak, Aowphol, and Stuart, 2015, *Zootaxa*, 4006](#): 296–297. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, *ZooKeys*, 935](#): 121–164, provided a range map. [Nishikawa, Sanamxay, Kurita, Hibino, Jono, and Nguyen, 2020, *Acad. J. Biol.*, 42](#): 135–137, provided an upper elevation record. In the *Tylotriton (Yaotriton) asperrimus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, *Taprobanica*, 10](#): 4–22, who discussed phylogenetics and reassigned the Vietnam record to a new species, *Tylotriton thaiorum*. [Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, *Russ. J. Herpetol.*, 28 \(3A\)](#): 67, continued the inclusion of Vietnam within the range. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, *Vert. Zool.*, *Senckenberg, 71*](#): 697–710, who discussed phylogenetics.

Tylototriton panhai Nishikawa, Khonsue, Pomchote, and Matsui, 2013

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton panhai*

Tylototriton* (*Yaotriton*) *panhai [Nishikawa, Khonsue, Pomchote, and Matsui, 2013, Zootaxa, 3737: 275](#). Holotype: THNHM 2800, by original designation. Type locality: "Phu Ruea, Phu Luang Wildlife Sanctuary, Loei Province, Thailand (17°29'59" N, 101°20'30" E, 1183 m asl)".

Yaotriton panhai — [Dubois, Ohler, and Pyron, 2021, Megataxa, 5: 408](#).

English Names

Panha's Knobby Newt ([Sparreboom, 2014, Salamanders Old World: 366](#)).

Loei Corcodile [sic] Newt — [Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 67](#).

Distribution

Phitsanulok (Phu Hin Rong Kla National Park), Loei Province (Phu Luang Wildlife Sanctuary and Phu Suan Sai National Par), and Phetchabun (Phy Thap Boek, Lom Kao District) Provinces, Thailand; reported in Borsan Village, Botene District, Xaignabouli Province, Laos, 1596 m elevation.

Comment

See comments under *Tylototriton verrucosus* for literature that presumably addresses this species under that name. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.: 189](#), provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World: 366–367](#), reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. See brief account by [Phimmachak, Aowphol, and Stuart, 2015, Zootaxa, 4006: 299–300](#), who provided the Laos localities. [Hernandez, Escoriza, Pomchote, and Hou, 2019, Herpetol. Bull., London, 147: 15–18](#), provided a record for Phetchabun Province, north-central Thailand, and discussed the range and habitat. [Niyomwan, Srisom, and Pawangkhanant, 2019, Field Guide Amph. Thailand: 94–95](#), provided a brief account (photograph, habitat, and range) for Thailand (in Thai). [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935: 121–164](#), provided a range map. [Makchai, Chuaynkern, Safoowong, Chuachat, and Cota, 2020, Amph. N. Thailand: 186](#), provided photographs, a brief account for Thailand, and a range map. In the *Tylototriton* (*Yaotriton*) *vietnamensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10: 4–22](#), who discussed phylogenetics. In the *Tylototriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71: 697–710](#), who discussed phylogenetics.

***Tylotriton panwaensis* Grismer, Wood, Quah, Thura, Espinoza, and Murdoch, 2019**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton panwaensis*

Tylotriton panwaensis [Grismer, Wood, Quah, Thura, Espinoza, and Murdoch, 2019, J. Nat. Hist., London, 53](#): 483. Holotype: CAS 245418, by original designation. Type locality: "vicinity of Panwa Village, Panwa Township, Myitkyina District, Kachin State, Myanmar (25.60425° N, 98.37664° E, WGS84) at 2256 m in elevation". urn:lsid:zoobank.org:pub:BE851CE6-81BD-488C-A616-39A948A2B9C6

English Names

Panwa Crocodile Newt ([Zug, 2022, Smithson. Contrib. Zool., 653](#): 7).

Distribution

Known from the vicinity of Panwa Town (Panwa Township) and Sadung (Myitkyina Township), Myitkyina District, Kachin State, Myanmar; a closely related population, possibly a distinct species is known from 304 km to the west at Lahe Township, Khandi District, Sagaing Region, Myanmar.

Comment

[Zaw, Yin, Chit, and Hmwe, 2020, Univ. Mandalay Res. J., 11](#): 59–72, characterized the population from Sadung, Myitkyina District, Kachin State, Myanmar, via morphometrics and molecular markers. In the *Tylotriton* (*Tylotriton*) *verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics. [Zug, 2022, Smithson. Contrib. Zool., 653](#): 7, discussed identification, habitat, and range in Myanmar.

***Tylotriton pasmansi* Bernardes, Le, Nguyen, Pham, Pham, Nguyen, and Ziegler, 2020**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton pasmansi*

Tylotriton pasmansi pasmansi Bernardes, Le, Nguyen, Pham, Pham, Nguyen, and Ziegler in [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 141. Holotype: IEBR 4466, by original designation. Type locality: "Phu Canh Nature Reserve, Da Bac District, Hoa Binh Province", Vietnam. <http://zoobank.org/3B901B94-4741-40BD-BDC1-75086A06A8FA>

Tylotriton pasmansi obsti Bernardes, Le, Nguyen, Pham, Pham, Nguyen and Ziegler in [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 146. Holotype: IEBR 4471, by original designation. Type locality: "Xuan Nha Nature Reserve, Van Ho District, Son La Province, at an elevation of 1090 m a.s.l.", Vietnam. <http://zoobank.org/7A124E44-4F79-499F-AFD3-5B429D1AB4FB>

English Names

Pasmans' Crocodile Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 67](#)).

Distribution

Phu Canh Nature Reserve, Da Bac District and Thuong Tien Nature Reserve, Lac Son District in Hoa Binh Province, and Xuan Son National Park, Tan Son District, Phu Tho Province, and Xuan Nha Nature Reserve, Van Ho District, Son La Province and Xuan Lien Nature Reserve, Thuong Xuan District, Thanh Hoa Province, Vietnam.

Comment

According to the original publication, this taxon has previously been confused with *Tylotriton vietnamensis* from Phu Tho Province, Vietnam, and *Tylotriton asperrimus* and *Tylotriton cf. asperrimus* from Lai Chau, Lao Cai, Hoa Binh, Phu Tho, and Lac Son provinces, Vietnam. In the *Tylotriton (Yaotriton) asperrimus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10: 4–22](#), who discussed phylogenetics. See comments by [Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 67](#). In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71: 697–710](#), who discussed phylogenetics.

Tylotriton phukhaensis Pomchote, Khonsue, Thammachoti, Hernandez, Peerachidacho, Suwannapoom, Onishi, and Nishikawa, 2020

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton phukhaensis*

Tylotriton phukhaensis [Pomchote, Khonsue, Thammachoti, Hernandez, Peerachidacho, Suwannapoom, Onishi, and Nishikawa, 2020, Tropical Nat. Hist., Thailand, 20: 154](#). Holotype: CUMZ-A-7719, by original designation. Type locality: "Doi Dong Ya Wai Mountain, DPKNP [= Doi Phu Kha National Park], Nan Province, Thailand (approximate coordinate 19° 11' N, 101° 6' E; 1,795 m amsl)".

Tylotriton (Tylotriton) phukhaensis — [Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 66](#).

English Names

Doi Phu Kha Newt (original publication).

Doi Phu Kha Crocodile Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 66](#)).

Distribution

Known only from the type locality (a temporary swamp in the Doi Dong Ya Wai Mountain, Doi Phu Kha National Park, Nan Province, northern Thailand at an elevation of 1795 m).

Comment

Most closely related to *Tylotriton anguliceps* and *Tylotriton uyanoi*, and previously confused with *Tylotriton verrucosus*, according to the original publication. [Makchai, Chuaynkern, Safoowong, Chuachat, and Cota, 2020, Amph. N. Thailand](#): 187, provided photographs, a brief account for Thailand, and a range map. In the *Tylotriton (Tylotriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

Tylotriton podichthys Phimmachak, Aowphol, and Stuart, 2015

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton podichthys*

Tylotriton (Tylotriton) podichthys [Phimmachak, Aowphol, and Stuart, 2015, Zootaxa, 4006](#): 301. Holotype: NCSM 77721, by original designation. Type locality: "Laos, Luang Phabang Province, Phoukhoun District, Nam Madao Village, 19°18'0.3"N 102°34'25.2"E, 1,189 m elev."

English Names

Luang Prabang Corcodile [sic] Newt — [Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\)](#): 66

Distribution

Luang Phabang, Xieng Khouang, and Huaphanh Provinces, Laos, from 1189–1493 m elevation.

Comment

Previously confused with *Tylotriton shanjing* and *Tylotriton verrucosus*, neither of which occurs in Laos with the naming of *Tylotriton podichthys*. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylotriton (Tylotriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton pseudoverrucosus* Hou, Gu, Zhang, Zeng, and Lu, 2012**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton pseudoverrucosus*

Tylotriton (Tylotriton) pseudoverrucosus Hou, Gu, Zhang, Zeng, and Lu in [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14](#): 63. Holotype: SYNY HM20110901-NT001, by original designation. Type locality: Ningnan County, Sichuan, China.

English Names

Southern Sichuan Crocodile Newt (original publication).

Chuannan Knobby Newt ([Fei and Ye, 2016, Amph. China, 1](#): 269).

Chuannan Crocodile Newt ([Fei and Ye, 2016, Amph. China, 1](#): 269).

Southern Sichuan Knobby Newt ([Sparreboom, 2014, Salamanders Old World](#): 367).

Distribution

Da Liang Shan (mountains), 2300–2800 m elevation, Ningnan County, southern Sichuan, China.

Comment

[Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 80, provided an account, photographs, and a map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 183, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 367–334, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 269–271, provided an account, photographs, and range map. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map and phylogenetic placement. In the *Tylotriton (Tylotriton) taliangensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *sTylotriton taliangensis* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton pulcherrimus* Hou, Zhang, Li, and Lu, 2012**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton pulcherrimus*

Tylotriton (Tylotriton) verrucosus pulcherrima Hou, Zhang, Li, and Lu in [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14](#): 63. Holotype: SYNU HM2012501-NT001, by original designation. Type locality: Luchun County, Yunnan, China. Synonymy by [Nishikawa, Khonsue, Pomchote, and Matsui, 2013, Zootaxa, 3737](#): 277. Error in the gender of the subspecies name. Synonymy not accepted without comment by [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164.

Tylototriton pulcherrima — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.:](#) 81.
Incorrect gender of the species name.

Tylototriton (Tylototriton) pulcherrima — [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.:](#)
183. Incorrect gender of the species name.

Tylototriton pulcherrimus — [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935:](#) 156.

English Names

Hoanglien Mountain Crocodile Newt (*Tylototriton verrucosus pulcherrima*: [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14:](#) 63).

Huanglienshan Knobby Newt ([Fei and Ye, 2016, Amph. China, 1:](#) 272).

Hoang Lien Corcodile [sic] Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\):](#) 67).

Distribution

Southern Yunnan, China, and adjacent northeastern Vietnam (Lai Chau Province).

Comment

[Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.:](#) 81, provided an account. [Fei and Ye, 2016, Amph. China, 1:](#) 272–277, provided account, photographs, and range map. [Nishikawa, Khonsue, Pomchote, and Matsui, 2013, Zootaxa, 3737:](#) 277, considered this species to be a synonym of *Tylototriton shanjing* on the basis of low genetic distance, but subsequent authors, mostly without comment, treated *Tylototriton pulcherrimus* as distinct. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935:](#) 121–164, mapped the species as largely restricted to Yunnan, China, but extending to Myanmar borderlands; they treated *Tylototriton pulcherrimus* as distinct without comment but provided a table of comparisons that suggested that recognition was the conservative course at this point in time. In the *Tylototriton (Tylototriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10:](#) 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71:](#) 697–710, who discussed phylogenetics.

Tylototriton shanjing Nussbaum, Brodie, and Yang, 1995

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton shanjing*

Tylototriton shanjing [Nussbaum, Brodie, and Yang, 1995, Herpetologica, 51:](#) 265. Holotype: KIZ II 0731 V.27, by original designation. Type locality: "Dingpa, 2150 m elevation, Jingdong County, Yunnan Province, People's Republic of China".

Tylototriton verrucosus shanjing — [Yang, 2008, in Yang and Rao \(ed.\), Amph. Rept. Yunnan](#): 19.

Tylototriton (Tylototriton) shanjing — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68.

English Names

Red Knobby Newt ([Fei and Ye, 2016, Amph. China, 1](#): 275).

Yunnan Newt ([Sparreboom, 2014, Salamanders Old World](#): 369).

Mandarin Salamander ([Sparreboom, 2014, Salamanders Old World](#): 369).

Distribution

Western and central Yunnan, China, extending to northeastern and eastern Myanmar borderlands, 1000 to 2000 m elevation. See comment.

Comment

Tylototriton shanjing had been placed in the synonymy of *Tylototriton verrucosus* by [Zhang, Rao, Yu, and Yang, 2007, Zool. Res., Kunming, 28](#): 430–436, on the basis of minimal sequence divergence; this synonymy disputed implicitly by [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68, and explicitly by [Stuart, Phimmachak, Sivongxay, and Robichaud, 2010, Zootaxa, 2650](#): 28. See brief account by [Zhao and Yang, 1997, Amph. Rept. Hengduan Mountains Region](#): 34–35. In the *Tylototriton verrucosus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 42 (although they only addressed Chinese species). [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 272–276, provided an account and range map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 181–182, provided a brief account, figure, and map. [Yang, 2008, in Yang and Rao \(ed.\), Amph. Rept. Yunnan](#): 18–19, provided a brief account for Yunnan, China. See statement of geographic range, habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 642. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 77. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 86, provided an account. [Zhao, Rao, Liu, Li, and Yuan, 2012, J. W. China Forest. Sci.](#), 41: 85–89, provided molecular evidence for the distinctiveness of this species and its sister-taxon relationship with *Tylototriton daweshanensis*. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 183, provided a brief account, photograph, and map. Records for Laos now have been referred to *Tylototriton podichthys*. [Sparreboom, 2014, Salamanders Old World](#): 369–371, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Khatiwada, Wang, Ghimire, Vasudevan, Paudel, and Jiang, 2015, Asian Herpetol. Res.](#), 6: 251, provided molecular evidence that suggests that *Tylototriton shanjing* is composed of two lineages, one of which is nested within *Tylototriton verrucosus*. [Fei and Ye, 2016, Amph. China, 1](#): 272–277, provided accounts (as *Tylototriton shanjing* and, without comment *Tylototriton pulcherrima* [sic], photographs, and range map, although given the results of [Nishikawa, Khonsue, Pomchote, and Matsui, 2013, Zootaxa, 3737](#): 277, one might expect nominal *Tylototriton shanjing* to be found to be a species complex. See comment under *Tylototriton pulcherrimus*. In the *Tylototriton (Tylototriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton shanorum* Nishikawa, Matsui, and Rao, 2014**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton shanorum*

Tylotriton (Tylotriton) shanorum [Nishikawa, Matsui, and Rao, 2014, Nat. Hist. Bull. Siam Soc., 60](#): 16. Holotype: CAS 230940, by original designation. Type locality: "Taunggyi Township, Shan State, Myanmar (20° 48' 28.5" N, 97°02' 45.1" E, 1457 m asl)".

English Names

Shan Crocodile Newt ([Zug, 2022, Smithson. Contrib. Zool., 653](#): 7).

Distribution

Taunggyi, Kalaw, Pindaya, Nyaungshwe, and Pinlaung townships, Shan state, central Myanmar.

Comment

Previously confused with *Tylotriton verrucosus*, but actually distant from that species according to an ML tree of ND2 in the original publication, where an unnamed Nepal population was also discussed. See comment under *Tylotriton himalayanus*. [Grismer, Wood, Quah, Thura, Espinoza, Grismer, Murdoch, and Lin, 2018, Zootaxa, 4500](#): 553–573, discussed in detail the morphology and phylogenetic relations of this species. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, mapped the species. [Onishi, Kyaw, Aung, Myint, Thwe, and Nishikawa, 2020, Nat. Hist. Bull. Siam Soc., 64](#): 47–50, provided new localities and discussed the range. In the *Tylotriton (Tylotriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics. [Zug, 2022, Smithson. Contrib. Zool., 653](#): 7, discussed identification, habitat, and range in Myanmar.

***Tylotriton sini* Lyu, Wang, Zeng, Zhou, Qi, Wan, and Wang, 2021**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton sini*

Tylotriton sini Lyu, Wang, Zeng, Zhou, Qi, Wan, and Wang in [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 702. Holotype: SYS a008354, by original designation. Type locality: "Mt Yunkai (22°16'32.90"N, 111°11'42.87"E; ca 1500 m a.s.l.), Xinyi, Guangdong, China". <http://zoobank.org/36FE6B75-1F35-4E4C-A08C-8DAA077CAEBC>

English Names

Sin's Knobby Newt (original publication).

Distribution

Currently known only from Mount Yunkai and the neighboring Mount Ehuangzhang, both in the Yunkai Mountains of western Guangdong, China.

Comment

The sister taxon of *Tylotriton hainanensis*, in the *Tylotriton asperrimus* group, and previously confused with *Tylotriton asperrimus* according to the original publication.

Tylotriton sparreboomi Bernardes, Le, Nguyen, Pham, Pham, Nguyen, and Ziegler, 2020

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton sparreboomi*

Tylotriton sparreboomi Bernardes, Le, Nguyen, Pham, Pham, Nguyen, and Ziegler in [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935: 150](#). Holotype: IEBR 4476, by original designation. Type locality: "Sa De Phin Commune, Sin Ho District, Lai Chau Province, Vietnam, at an elevation of 1670 m a.s.l.". <http://zoobank.org/4599D131-7C89-4D62-B43A-15E24C6473B9>

Tylotriton (Yaotriton) sparreboomi — [Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 67](#).

English Names

Sparreboom's Crocodile Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\): 67](#)).

Distribution

Known only from the type locality in Sa De Phin Commune, Sin Ho District, Lai Chau Province, northern Vietnam, 1670 m elevation.

Comment

In the *Tylotriton asperrimus* complex, according to the original publication. In the *Tylotriton (Yaotriton) asperrimus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10: 4–22](#), who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71: 697–710](#), who discussed phylogenetics.

***Tylotriton taliangensis* Liu, 1950**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton taliangensis*

Tylotriton taliangensis [Liu, 1950, Fieldiana, Zool. Mem., 2](#): 106. Holotype: FMNH 49388, by original designation. Type locality: "Pusakang, Fulinhsien, Sikang [now Sichuan], 8700 feet altitude", China.

Tylotriton (*Tylotriton*) *taliangensis* — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 9; [Zhao and Yang, 1997, Amph. Rept. Hengduan Mountains Region](#): 33.

Pleurodeles (*Tylotriton*) *taliangensis* — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4](#): 141; [Dubois, 1987 "1986", Alytes, 5](#): 11.

Tylotriton (*Tylotriton*) *taliangensis* — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68.

Liangshantriton taliangensis — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 44.

English Names

Pusakang Crocodile Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 36).

Taliang Knobby Newt ([Fei, 1999, Atlas Amph. China](#): 42).

Distribution

South-central Sichuan (Ebian, Hanyuan, Mabian, Meigu, Mianning, Shimian, and Zhaojue), China, 1300–3000 m elevation.

Comment

See accounts by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 78; [Fei, 1999, Atlas Amph. China](#): 42; and [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 229–231. [Fei and Ye, 2001, Color Handbook Amph. Sichuan](#): 95, provided a brief account and illustration. See also brief account by [Zhao and Yang, 1997, Amph. Rept. Hengduan Mountains Region](#): 33–34. In the *Tylotriton verrucosus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 42 (although they only addressed Chinese species). [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 277–280, provided an account and range map. [Raffaëlli, 2007, Les Urodèles du Monde](#): 147, provided a brief account (as *Tylotriton taliangensis*), figure, and map. See statement of geographic range, habitat, and conservation status (as *Tylotriton taliangensis*) in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 642. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 80, provided a brief account (as *Tylotriton taliangensis*) including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 96, provided an account, photographs, and a map. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 185, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 371–372, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 295–318–320, provided an account, photograph, and range map. The phylogenetic analysis of [Kieren, Sparreboom, Hochkirch, and Veith, 2018, Mol. Phylogenet. Evol., 121](#): 98–109, implies that recognition of *Liangshantriton* may render *Tylotriton* nonmonophyletic. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map and phylogenetic placement. In the *Tylotriton* (*Tylotriton*) *taliangensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton taliangensis* group of [Lyu,](#)

[Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics. [Shu, Hou, Cheng, Shu, Lin, Wang, Li, Song, Jiang, and Xie, 2022, Zool. Res., Kunming, 43](#): 129–146, discussed (as *Liangshantriton taliangensis*) molecular phylogeography, historical biogeography, conservation genetics, and conservation recommendations.

***Tylototriton thaiorum* Poyarkov, Nguyen, and Arkhipov, 2021**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton thaiorum*

Tylototriton (Yaotriton) thaiorum [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 14. Holotype: ZMMU A-7577, by original designation. Type locality: "an ephemeral swamp in a forest clearing surrounded by montane evergreen tropical forest in Pu Hoat Nature Reserve, environs of Muong Dan Village, Hanh Dich Commune, Que Phong District, Nghe An Province, Central Vietnam (19.71715°N, 104.83791°E; 709 m a.s.l.)". urn:lsid:zoobank.org:act:D7E7A23D-72FE-416E-BFE7-1D14B03612FF

English Names

Thai Crocodile Newt (original publication).

Distribution

Pu Hoat Nature Reserve, Nghe An Province, Vietnam, 700 to 1000 m elevation, close to the Houaphan Province, Laos, border where it is expected to occur on the northwestern slopes of the Pu Hoat Mountain Range.

Comment

In the *Tylototriton (Yaotriton) asperrimus* species group and the sister taxon of *Tylototriton notialis*, with which it formerly was confused, according to the original publication, where natural history, morphology, molecular markers, and phylogeny of *Tylototriton* generally were discussed.

***Tylototriton tongziensis* Li, Liu, Shi, Wei, and Wang, 2022**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton tongziensis*

Tylototriton tongziensis [Li, Liu, Shi, Wei, and Wang, 2022, Zootaxa, 5128](#): 253. Holotype: CIB WB2020190, by original designation. Type locality: "Huanglian Nature Reserve (28° 29' N, 107° 02' E, ca. 1510 m a.s.l.), Tongzi County, Guizhou Province, China." <http://zoobank.org/urn:lsid:zoobank.org:pub:5F4EBB6C-8CD3-4DCD-9524-C4E3F3FC712C>

English Names

Tongzi Knobby Newt (original publication).

Distribution

Montane forests of Huanglian Nature Reserve, Tongzi County, Guizhou Province, China.

Comment

Most closely related to *Tylotriton dabienicus*, according to the original publication, where comparative morphology and mtDNA markers were detailed.

Tylotriton umphangensis Pomchote, Peerachidacho, Hernandez, Sapewisut, Khonsue, Thammachoti, and Nishikawa, 2021

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton umphangensis*

Tylotriton umphangensis [Pomchote, Peerachidacho, Hernandez, Sapewisut, Khonsue, Thammachoti, and Nishikawa, 2021, ZooKeys, 1072](#): 94. Holotype: CUMZ-A-8243, by original designation. Type locality: "Umphang Wildlife Sanctuary, Tak Province, western Thailand, approximate coordinate 16°12' N, 98°58' E; ca 1,150 m a.m.s.l."

English Names

Umphang Crocodile Newt (original publication).

Distribution

Restricted to evergreen hill forests in Umphang Wildlife Sanctuary, Tak Province, western Thailand

Comment

The sister taxon of *Tylotriton uyenoii*, with which it has previously been confused, according to the original publication, where comparative morphology and molecular markers were discussed.

Tylotriton uyenoi Nishikawa, Khonsue, Pomchote, and Matsui, 2013

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton uyenoi*

Tylotriton (Tylotriton) uyenoi [Nishikawa, Khonsue, Pomchote, and Matsui, 2013, Zootaxa, 3737](#): 272. Holotype: KUHE 19147, by original designation. Type locality: "Phuping Rajanives Palace, Doi Suthep, Chiang Mai Province, Thailand (18° 48'16" N, 98° 54'9" E, 1436 m asl)".

English Names

Uéno's Knobby Newt ([Sparreboom, 2014, Salamanders Old World](#): 372).

Chiang Mai Corcodile [sic] Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\)](#): 67).

Distribution

Chiang Mai Province (Doi Ang Khang, Doi Chang Kien, Doi Inthanon, Doi Pui, Chiang Mai, and Doi Suthep), northwestern Thailand and Khao Laem National Park, Kanchanaburi Province, western Thailand at 1507 m elevation; likely extending into adjacent Myanmar.

Tylotriton verrucosus Anderson, 1871

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton verrucosus*

Tylotriton verrucosus [Anderson, 1871, Proc. Zool. Soc. London, 1871](#): 423. Types: Not designated although syntypes evident. [Sclater, 1892, List Batr. Indian Mus.](#): 36, considered ZSIC 10397, 11396, 10366–81 to be syntypes, as is BMNH 1874.6.1.3 (according to [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 280) and museum records; see discussion by [Nussbaum, Brodie, and Yang, 1995, Herpetologica, 51](#): 264, who designated as neotype KIZ 74II0061 VI.6. Type locality: "Nantin, Momien, and Hotha valleys, Western Yunan [sic], China." Neotype from "Gongwa, 1600 m elevation, Longchuan County, Yunnan Province, People's Republic of China".

Triturus (Tylotriton) verrucosus — [Boulenger, 1878, Bull. Soc. Zool. France, 3](#): 308.

Tylotriton verrucosus — [Boettger, 1885, Ber. Offenbach. Ver. Naturkd., 24–25](#): 165; [Bourret, 1927, Fauna Indochine, Vert., 3](#): 255. Spelling error.

Glossolega verrucosa — [Cope, 1889, Bull. U.S. Natl. Mus., 34](#): 201. Incorrect subsequent spelling of generic name.

Tylotriton verrucosus — [Dunn, 1918, Bull. Mus. Comp. Zool., 62](#): 450; [Wolterstorff and Herre, 1935, Arch. Naturgesch., Leipzig, N. F., 4](#): 224.

Tylotriton (Tylotriton) verrucosus — [Zhao and Hu, 1984, Stud. Chinese Tailed Amph.](#): 9.

Pleurodeles (Tylototriton) verrucosus — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4](#): 141; [Dubois, 1987 "1986", Alytes, 5](#): 11.

Tylototriton verrucosus verrucosus — [Yang, 2008, in Yang and Rao \(ed.\), Amph. Rept. Yunnan](#): 19.

Tylototriton (Tylototriton) verrucosus — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68.

Tylototriton (Tylototriton) verrucosus verrucosus — [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14](#): 63.

English Names

Crocodile Newt ([Frank and Ramus, 1995, Compl. Guide Scient. Common Names Amph. Rept. World](#): 36; [Chan-ard, 2003, Photograph. Guide Amph. Thailand](#): 72; [Zug, 2022, Smithson. Contrib. Zool., 653](#): 7).

Crocodile Salamander ([Nutphund, 2001, Amph. Thailand](#): 50).

Himalayan Newt ([Das and Dutta, 1998, Hamadryad, 23](#): 68; [Schleich, Anders, and Kästle, 2002, in Schleich and Kästle \(eds.\), Amph. Rept. Nepal](#): 78; [Ahmed, Das, and Dutta, 2009, Amph. Rept. NE India](#): 52; [Dinesh, Radhakrishnan, Gururaja, and Bhatta, 2009, Rec. Zool. Surv. India, Occas. Pap., 302](#): 123; [Mathew and Sen, 2010, Pict. Guide Amph. NE India](#): 123).

Red Knobby Newt ([Fei, 1999, Atlas Amph. China](#): 44).

Orange-warted Salamander ([Nutphund, 2001, Amph. Thailand](#): 50).

Inthanon Salamander ([Nutphund, 2001, Amph. Thailand](#): 50).

Crocodile Newt ([Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 10).

Himalayan Salamander ([Sparreboom, 2014, Salamanders Old World](#): 373).

Yunnan Crocodile Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\)](#): 67).

Distribution

Provisional, with only the northeastern Myanmar, and adjacent western Yunnan, China, and Chiang Rai and Chiang Mai Provinces, northern Thailand, populations assured to be of this species. Other populations from southeastern Tibet (China), hills of Arunachal Pradesh, West Bengal, and Manipur in India; Danaga, Punakha, Wangdue Phodrang, and Sarpang Districts, and Bhutan are likely assignable to other species. See comment.

Comment

With the recognition of *Tylototriton shanjing*, *Tylototriton panhai*, and *Tylototriton yangi*, and the recognition that additional species remain to be named, it is not clear what the geographic limits of *Tylototriton verrucosus* actually are. Inasmuch as the type locality of *Tylototriton verrucosus* is in Yunnan, China, hard on the border of northeastern Myanmar, within or near the range of *Tylototriton shanjing*, it is entirely possible that we will see significant taxonomic rearrangements in the future (DRF). See accounts (all of which may include taxa that were subsequently named) by [Taylor, 1962, Univ. Kansas Sci. Bull., 43](#): 279–282; [Anders, Schleich, and Shah, 1998, in Schleich and Kästle \(eds.\), Contr. Herpetol. S. Asia Nepal India, 4](#): 1–26; [Ye, Fei, and Hu, 1993, Rare and Economic Amph.](#)

China 79; [Fei, 1999, Atlas Amph. China](#): 44; and [Thorn and Raffaëlli, 2000, Salamand. Ancien Monde](#): 222–226. [Chanda, 2002, Handb. Indian Amph.](#): 183, provided a brief account for India. [Wongratana, 1984, Nat. Hist. Bull. Siam Soc.](#), 32: 107–110, discussed the range in Thailand. [Zhang and Wen, 2000, Amph. Guangxi](#): 31, provided an account (for Guangxi), although this record requires verification. [Panigrahi, 2000, Indian Biol.](#), 32: 41–43, noted that the Darjeeling population differed distinctly in morphology and coloration from populations elsewhere in Asia. [Anders, 2002, in Schleich and Kästle \(eds.\), Amph. Rept. Nepal](#): 134–140, provided an extensive account for Nepalese population. See account by [Shrestha, 2001, Herpetol. Nepal](#): 62–71. [Seglie, Roy, Giacomina, and Mushahiddunnabi, 2003, Russ. J. Herpetol.](#), 10: 157–162, discussed range in the Darjeeling District of India. [Palden, 2003, Hamadryad](#), 27: 286–287, provided records for Bhutan. [Sarkar, Biswas, and Ray, 1992, State Fauna Ser.](#), 3: 94–95, provided a brief account for West Bengal, India. [Sarkar and Ray, 2006, In Alfred \(ed.\), Fauna of Arunachal Pradesh, Part 1](#): 313, provided a brief report for Arunachal Pradesh. [Nuthund, 2001, Amph. Thailand](#): 50–51, provided a very brief account and photo. [Chan-ard, 2003, Photograph. Guide Amph. Thailand](#): 72, provided a very brief account, map for Thailand, and photograph. [Nguyen, Ho, and Nguyen, 2005, Checklist Amph. Rept. Vietnam](#): 10, provided a specific locality for Vietnam. In the *Tylototriton verrucosus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 42 (although they only addressed Chinese species). [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph.](#) 1: 280–283, provided an account and range map. [Raffaëlli, 2007, Les Urodèles du Monde](#): 145, provided a brief account, figure, and map. [Das and Dutta, 2007, Hamadryad](#), 31: 154–181, noted several larval descriptions in the literature. [Devi and Shamungou, 2006, J. Exp. Zool. India](#), 9: 317–324, provided specific localities within Manipur, India (as *Pleurodeles verrucosus*). [Hegde and Deuti, 2007, Cobra, Chennai](#), 1 (2): 29–36, provided specific localities from West Bengal, northeastern India. [Chuaynkern, Chantipinthara, Songchan, and Duengkae, 2008, Herpetol. Rev.](#), 39: 361, described range in Thailand. [Ahmed, Das, and Dutta, 2009, Amph. Rept. NE India](#): 52, provided a brief account for northeastern India. [Chuaynkern, Chantipinthara, Songchan, and Duengkae, 2008, Herpetol. Rev.](#), 39: 361, provided a range extension in Thailand and discussed the range within that country. [Mathew and Sen, 2010, Pict. Guide Amph. NE India](#): 123, provided a brief characterization and photograph. [Nguyen, Nguyen, Hô, Le, and Nguyen, 2009, Tạp chí Công nghệ Sinh học](#), 7: 325–333, discussed the species in Vietnam, although [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 181, suggested that these specimens are referable to other species. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 81, provided a brief account including photographs. [Li, Zhao, and Dong, 2010, Amph. Rept. Tibet](#): 11–12, provided an account for Xizang, China. See [Shah and Tiwari, 2004, Herpetofauna Nepal](#): 31, for brief account for Nepal. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 82–83, provided an account, photographs, and a map. [Wangyal, 2013, J. Threatened Taxa](#), 5: 4776, provided records from south-central Bhutan. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 181–182, provided a brief account, photographs, and range map. Records from Myanmar were referred to *Tylototriton shanorum* by [Nishikawa, Matsui, and Rao, 2014, Nat. Hist. Bull. Siam Soc.](#), 60: 9–22. [Wangyal and Gurung, 2012, Frog Leg](#), 18: 31–44, and [Wangyal and Gurung, 2012, J. Threatened Taxa](#), 4: 3218–3222, reported on the range in the Punakha-Wangdue Valley, Bhutan. Records from Laos now have been referred to *Tylototriton podichthys*. [Sparreboom, 2014, Salamanders Old World](#): 373–377, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Wangyal, 2014, J. Bhutan Ecol. Soc.](#), 1: 29, discussed the range in Bhutan. [Subba, Aravind, and Ravikanth, 2016, Check List](#), 13(1: 2033): 12, considered the presence of this species in Sikkim, India, to be doubtful and confused with another species. [Grismer, Wood, Quah, Thura, Espinoza, Grismer, Murdoch, and Lin, 2018, Zootaxa](#), 4500: 553–573, reported on the phylogenetics of the species of *Tylototriton*, noting an unnamed species in northern Myanmar previously associated with *Tylototriton verrucosus*. [Chettri, 2017, Das \(ed.\), Diversity Ecol. Amph. India](#): 98, doubted the presence of this species in Sikkim, India, as that political unit is currently defined. [Pomchote, Khonsue, Sapewisut, Eto, and Nishikawa, 2020, Tropical Nat. Hist., Thailand](#), 20: 1–15, reported the species (genetically confirmed) from Doi Chang, Chiang Rai Province, Thailand; other populations in Thailand have been reassigned to *Tylototriton uyenoï*, *Tylototriton anguliceps*, and *Tylototriton panhai*. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys](#), 935: 121–164, implied that several populations tentatively applied to this name may be distinct and provided a range map restricting the species to northeastern Myanmar and adjacent western Yunnan, China. See account (*Tylototriton* cf. *verrucosus*) by [Che, Jiang, Yan, and Zhang, 2020, Amph. Rept. Tibet](#): 57–61. [Zaw, Yin, Chit, and Hmwe, 2020, Univ. Mandalay Res. J.](#), 11: 59–72, characterized the population from Sinlum Mountain, Momauk Township, Banmaw District, Kachin State, Myanmar, via morphometrics and molecular markers. See account and discussion of *Tylototriton* cf. *verrucosus* in Tibet by [Che, Jiang, Yan, and Zhang, 2020, Amph. Rept. Tibet](#): 62–65. In the *Tylototriton (Tylototriton) verrucosus* species group

of [Poyarkov, Nguyen, and Arkhipov, 2021, *Taprobanica*, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, *Vert. Zool., Senckenberg*, 71](#): 697–710, who discussed phylogenetics. [Zug, 2022, *Smithson. Contrib. Zool.*, 653](#): 7, discussed identification, habitat, and range in Myanmar. [Pomchote, Peerachidacho, Sapewisut, Hernandez, Onishi, and Nishikawa, 2022, *J. Asia-Pacific Biodiversity*, 15](#): 30–39, reported on the morphological variation, conservation status, and molecular markers of a population from Doi Pha Hom Pok National Park (DHPNP), Chiang Mai Province, northern Thailand.

***Tylotriton vietnamensis* Böhme, Schöttler, Nguyen, and Köhler, 2005**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton vietnamensis*

Tylotriton vietnamensis [Böhme, Schöttler, Nguyen, and Köhler, 2005, *Salamandra*, 41](#): 215. Holotype: ZFMK 80637, by original designation. Type locality: "vicinity of Dong Vanh Village, Luc Son Commune, Luc Nam District, Bac Giang Province, northern Vietnam (21° 12' N, 106° 40' E, approximately 250-300 m a.s.l.)".

Tylotriton (Yaotriton) vietnamensis — [Dubois and Raffaëlli, 2009, *Alytes*, 26](#): 68.

Yaotriton vietnamensis — [Fei, Ye, and Jiang, 2012, *Colored Atlas Chinese Amph. Distr.*](#): 87, by implication; [Dubois, Ohler, and Pyron, 2021, *Megataxa*, 5](#): 408.

English Names

Vietnamese Knobby Newt ([Sparreboom, 2014, *Salamanders Old World*](#): 378).

Vietnamese Crocodile Newt ([Sparreboom, 2014, *Salamanders Old World*](#): 378).

Distribution

Northern and north-central Vietnam in Phu Tho, Cao Bang, Bac Giang, and Quang Ninh provinces; Khammouan Province, Laos.

Comment

See comments under *Tylotriton* and *Tylotriton asperrimus*. [Raffaëlli, 2007, *Les Urodèles du Monde*](#): 148–149, provided a brief account, figure, and map. [Nguyen, Nguyen, Hồ, Le, and Nguyen, 2009, *Tap chí Công nghệ Sinh học*, 7](#): 325–333, discussed the species and its distinctiveness from *Tylotriton hainanensis*. [Stuart, Phimmachak, Sivongxay, and Robichaud, 2010, *Zootaxa*, 2650](#): 30, suggested that nominal *Tylotriton vietnamensis* may include more than one species (*Tylotriton zieglieri* being one of the recent segregates—DRF). [Bernardes, Rödder, Nguyen, Pham, Nguyen, and Ziegler, 2013, *J. Nat. Hist., London*, 47](#): 1161–1175, discussed habitat and potential distribution. [Hecht, Pham, Nguyen, Nguyen, Bonkowski, and Ziegler, 2013, *Biodiversity J.*, 4](#): 507–552, reported a record from Tay Yen Tu Nature Reserve, Bac Giang Province, northeastern Vietnam and discussed the range. [Sparreboom, 2014, *Salamanders Old World*](#): 378–379, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Bernardes, Pham, Nguyen, Le, Bonkowski, and Ziegler, 2017, *Salamandra*, 53](#): 451–457, reported on morphometrics and ecology

of a population in Dong Son–Ky Thuong Nature Reserve, Dong Son Commune, Hoanh Bo District, Quang Ninh Province, Vietnam. In the *Tylotriton (Yaotriton) vietnamensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

***Tylotriton wexianensis* Fei, Ye, and Yang, 1984**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton wexianensis*

Tylotriton asperrimus wexianensis [Fei, Ye, and Yang, 1984, Acta Zool. Sinica, 30](#): 89. Holotype: CIB 638164, by original designation. Type locality: "Wexian [= Wen County], Gansu [Province], alt. 946 m", China.

Tylotriton asperrimus pingwuensis [Deng and Yu, 1984, Acta Herpetol. Sinica, Chengdu, N.S., 3 \(2\)](#): 75. Holotype: KIZ 74005, by original designation. Type locality: "Duiwoliang, Pingwu, Sichuan, alt. 1400 m", China. Synonymy by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#): 80, following [Zhao, Hu, Jiang, and Yang, 1988, Studies on Chinese Salamanders](#): 63, who considered it likely synonymous.

Pleurodeles (Tylotriton) asperrimus wexianensis — [Risch, 1985, J. Bengal Nat. Hist. Soc., N.S., 4](#): 142.

Echinotriton asperrimus wexianensis — [Zhao and Adler, 1993, Herpetol. China](#): 112. 1

Tylotriton wexianensis — [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#): 80.

Tylotriton (Yaotriton) wexianensis — [Dubois and Raffaëlli, 2009, Alytes, 26](#): 68.

Tylotriton wexianensis wexianensis — [Chen, Wang, and Tao, 2010, Acta Zootaxon. Sinica, 35](#): 666; by implication.

Yaotriton wexianensis — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 94; [Dubois, Ohler, and Pyron, 2021, Megatixa, 5](#): 408.

English Names

Wexian Knobby Salamander ([Fei, 1999, Atlas Amph. China](#): 42).

Wexian Knobby Newt ([Fei and Ye, 2001, Color Handbook Amph. Sichuan](#): 96).

Distribution

Chongqing (Fengjie, Wenzhou, and Yunyang), Gansu (Wexian), Guizhou (Dafang, Leishan, Suiyang, and Zunyi), and Sichuan (Jiange, Leishan, Pingwu, Qingchuan, and Wangcang), China, 940 to 1400 m elevation. See comment.

Comment

See comments under *Tylotriton*. See accounts by [Ye, Fei, and Hu, 1993, Rare and Economic Amph. China](#) 81, and [Fei, 1999, Atlas Amph. China](#): 42. [Fei and Ye, 2001, Color Handbook Amph. Sichuan](#): 96, provided a brief account and illustration. In the *Tylotriton asperrimus* group of [Fei, Ye, Huang, Jiang, and Xie, 2005, in Fei et al. \(eds.\), Illust. Key Chinese Amph.](#): 42 (although they only addressed Chinese species). [Fei, Hu, Ye, and Huang, 2006, Fauna Sinica, Amph. 1](#): 265-268. [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 187, provided a brief account, photograph, and map. See photograph, map, description of geographic range and habitat, and conservation status in [Stuart, Hoffmann, Chanson, Cox, Berridge, Ramani, and Young, 2008, Threatened Amph. World](#): 607. [Fei, Ye, and Jiang, 2010, Colored Atlas of Chinese Amph.](#): 74-75, provided a brief account including photographs of specimens and habitat. [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 94-95, provided an account, photographs, and a map. [Sparreboom, 2014, Salamanders Old World](#): 380-381, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Fei and Ye, 2016, Amph. China, 1](#): 306-308, provided an account (as *Yaotriton wenxianensis*), photographs, and range map. See [Yao and Gong, 2012, Amph. Rept. Gansu](#): 26-27, who provided a brief account and photograph, as *Echinotriton asperrimus*. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121-164, provided a range map, treating the populations from northern Guangxi, central Guizhou, Chongqing and Hubei, China as *Tylotriton* cf. *wenxianensis*, implying a species complex. In the *Tylotriton* (*Yaotriton*) *wenxianensis* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4-22, who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697-710, who discussed phylogenetics.

***Tylotriton yangi* Hou, Zhang, Zhou, Li, and Lu, 2012**

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylotriton](#) > Species: *Tylotriton yangi*

Tylotriton* (*Tylotriton*) *yangi Hou, Zhang, Zhou, Li, and Lu *In* [Hou, Li, and Lü, 2012, J. Huangshan Univ., 14](#): 64. Holotype: SYNHM20070801-NT001, by original designation.. Type locality: Gejiu, Yunnan, China.

Tylotriton daweshanensis [Zhao, Rao, Liu, Li, and Yuan, 2012, J. W. China Forest. Sci., 41](#): 88. Holotype: Rao D.-q. collection 000020, by original designation; now in KIZ. Type locality: Mount Dawei, Pingbian County, Yunnan Province [China]. Synonymy by [Nishikawa, Rao, Matsui, and Eto, 2015, Curr. Herpetol., Kyoto, 34](#): 67.

English Names

Tiannan Crocodile Newt (original publication of *Tylotriton yangi*).

Tiannan Knobby Newt ([Fei and Ye, 2016, Amph. China, 1](#): 281).

Dawi Knobby Newt (*Tylotriton daweshanensis* [no longer recognized]: [Sparreboom, 2014, Salamanders Old World](#): 361).

Distribution

Gejiu, Mangzi, Hekou, Pingbian, and Wenshan counties, Yunnan, China, above 1200 m elevation, on ridgelines extending into extreme northern Vietnam so expected there.

Comment

[Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 184, provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 361 (as *Tylototriton dawishanensis*) and 381–382 (*Tylototriton yangi*), reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. On the basis of morphology and mtDNA [Nishikawa, Rao, Matsui, and Eto, 2015, Curr. Herpetol., Kyoto, 34](#): 67–71, considered *Tylototriton dawishanensis* and *Tylototriton yangi* to be conspecific. [Fei and Ye, 2016, Amph. China, 1](#): 281–284, provided photographs, an account, and range map. [Wang, Yuan, Zhong, Li, and Verrell, 2017, Amph. Rept. Conserv., 11\(2\)](#): 33–43, discussed the reproductive biology of this species within the comparative context of the *Tylototriton verrucosus* group. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. In the *Tylototriton (Tylototriton) verrucosus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylototriton verrucosus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.

Tylototriton ziegleri Nishikawa, Matsui, and Nguyen, 2013

Class: [Amphibia](#) > Order: [Caudata](#) > Family: [Salamandridae](#) > Subfamily: [Pleurodelinae](#) > Genus: [Tylototriton](#) > Species: *Tylototriton ziegleri*

Tylototriton ziegleri [Nishikawa, Matsui, and Nguyen, 2013, Curr. Herpetol., Kyoto, 32](#): 43. Holotype: VNMN 3390, by original designation. Type locality: "Mt. Ta Boc, Ban Thang (Thang Village), Tung Vai Municipality, Quan Ba District, Ha Giang Province, Northern Vietnam, (23° 03' 25" N, 104° 50' 47" E, 1357 m asl)".

Yaotriton ziegleri — [Fei, Ye, and Jiang, 2012, Colored Atlas Chinese Amph. Distr.](#): 87, by implication; [Dubois, Ohler, and Pyron, 2021, Megatixa, 5](#): 408.

Tylototriton (Yaotriton) ziegleri — [Raffaëlli, 2013, Urodeles du Monde, 2nd ed.](#): 187.

English Names

Ziegler's Knobby Newt ([Sparreboom, 2014, Salamanders Old World](#): 382).

Ziegler's Corcodile [sic] Newt ([Poyarkov, Nguyen, Popov, Geissler, Pawangkhanant, Neang, Suwannapoom, and Orlov, 2021, Russ. J. Herpetol., 28 \(3A\)](#): 68).

Distribution

Ha Giang and Cao Bang provinces of northern Vietnam; likely extending into adjacent Lao Cai Province; reported from adjacent Yunnan (Malipo County), China.

Comment

The sister taxon of *Tylototriton notialis* + *Tylototriton asperrimus* according to the original publication, in which it was noted that this species had been previously confused with *Tylototriton vietnamensis* and *Tylototriton asperrimus*. See comment under *Tylototriton* regarding taxonomy. [Raffaëlli, 2013](#).

[Urodeles du Monde, 2nd ed.](#): 187 provided a brief account, photograph, and map. [Sparreboom, 2014, Salamanders Old World](#): 382–384, reviewed the biology, characteristics, distribution, reproduction, and conservation of the species. [Bernardes, Le, Nguyen, Pham, Pham, Nguyen, Rödder, Bonkowski, and Ziegler, 2020, ZooKeys, 935](#): 121–164, provided a range map. [Ye, Wei, Han, Ni, Yao, Xu, Li, Rao, and Zhang, 2017, Conserv. Genet. Resources, 9](#): 503–506, reported on the complete mtDNA genome and reported the species for Malipo County, Yunnan, China. In the *Tylotriton (Yaotriton) asperrimus* species group of [Poyarkov, Nguyen, and Arkhipov, 2021, Taprobanica, 10](#): 4–22, who discussed phylogenetics. In the *Tylotriton asperrimus* group of [Lyu, Wang, Zeng, Zhou, Qi, Wan, Li, and Wang, 2021, Vert. Zool., Senckenberg, 71](#): 697–710, who discussed phylogenetics.