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2017 中国两栖爬行动物新种、新纪录及分类变动

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2017 年内，我国累计新发现两栖爬行动物新物种 22 种新亚种 2 种，隶属于 4 目，10 科 17 属。其中两栖类包括了无尾目 Anura 的角蟾科 Megophryidae（掌突蟾属 *Leptolalax*、异角蟾属 *Xenophrys*）、蛙科 Ranidae（湍蛙属 *Amolops*、琴蛙属 *Nidirana*、蛙属 *Rana*、臭蛙属 *Odorrana* [见下文关于 *Odorrana arunachalensis* 的属级讨论]）、树蛙科 Rhacophoridae（溪树蛙属 *Buergeria*、纤树蛙属 *Gracixalus*、原指树蛙属 *Kurixalus*、树蛙属 *Rhacophorus*）和有尾目的 Caudata 蝾螈科 Salamandridae（疣螈属 *Tylototriton*）；爬行类包括了有鳞目 Squamata 的鬣蜥科 Agamidae（攀蜥属 *Japalura*）、游蛇科 Colubridae（后棱蛇属 *Opisthotropis*）、蜥蜴科 Lacertidae（草蜥属 *Takysdromus*）、石龙子科 Scincidae（石龙子属 *Plestiodon*）、蝮蛇科 Viperidae（亚洲蝮属 *Gloydius*）以及龟鳖目 Tesudines 的地龟科 Geoemydidae（闭壳龟属 *Coura*）。

其中，新物种最多的属为异角蟾属（4 种），分布于我国东南（广东）和西南地区（云南、贵州），其次是树蛙属和后棱蛇属（各 2 种），均分布于我国东南地区。从地理格局角度来看，2017 年发现描述的新物种分布格局较 2016 年不

同，分散于全国 13 省及地区（包括钓鱼岛）（2016 年则集中于云南和西藏两省）（Wang & Chen, 2017 [22]）。尽管所涉及省份较多，绝大多数新物种集中发现于广东省（4 种）和安徽省（3 新种 1 新亚种）。同时，2017 年中国增加两栖爬行动物新纪录 4 种（棱皮树蛙属、异角蟾属、瘰螈属及疣螈属）。

结合先前数据，截止 2017 年年底，我国共记录报道两栖动物 468 种，爬行动物 481 种 (Cai et al., 2015; Wang & Chen, 2017 [22])。在此我们总结 2017 年所描述新物种，同时本文总结了中国两栖爬行动物在 2017 年内发生的主要分类变动。

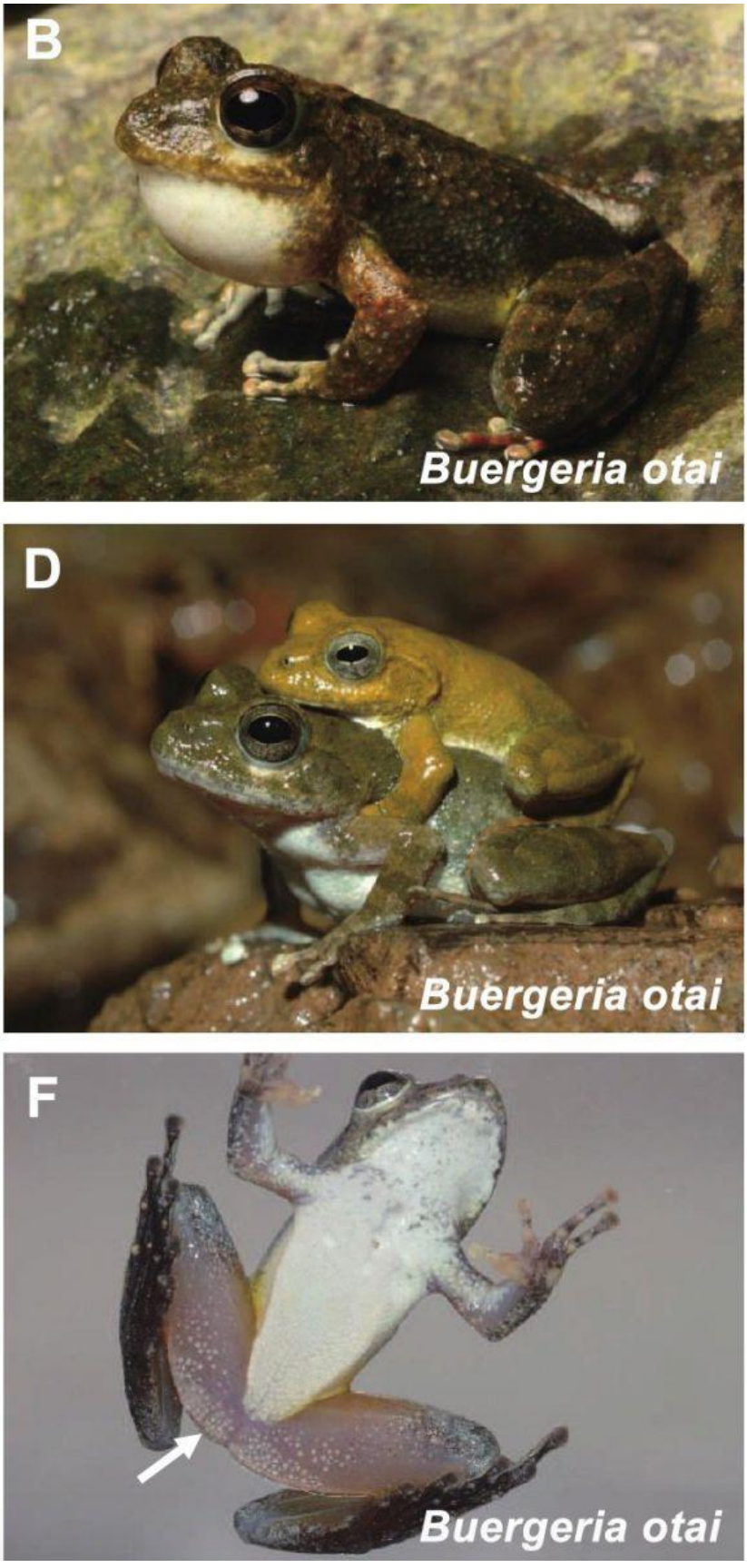
新物种

两栖类 Amphibia

新都桥湍蛙 *Amolops xinduqiao* (四川省) [4]

王聿凡 摄

太田溪树蛙 *Buergeria otai* (台湾省) [24]



自 Wang et al., 2017 [24]

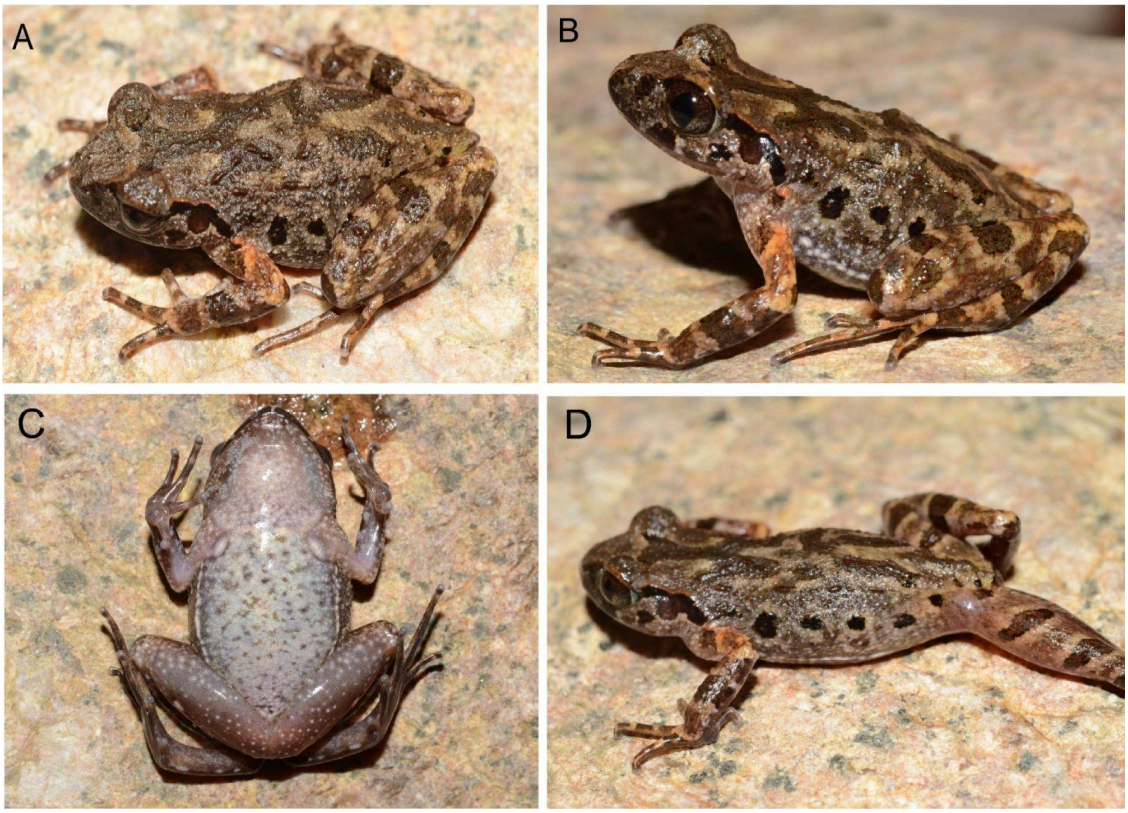
井冈纤树蛙 *Gracixalus jinggangensis* (江西省) [30]

吕植桐 摄

冷泉原指树蛙 *Kurixalus lenquanensis* (云南省) [28]

王剀 摄

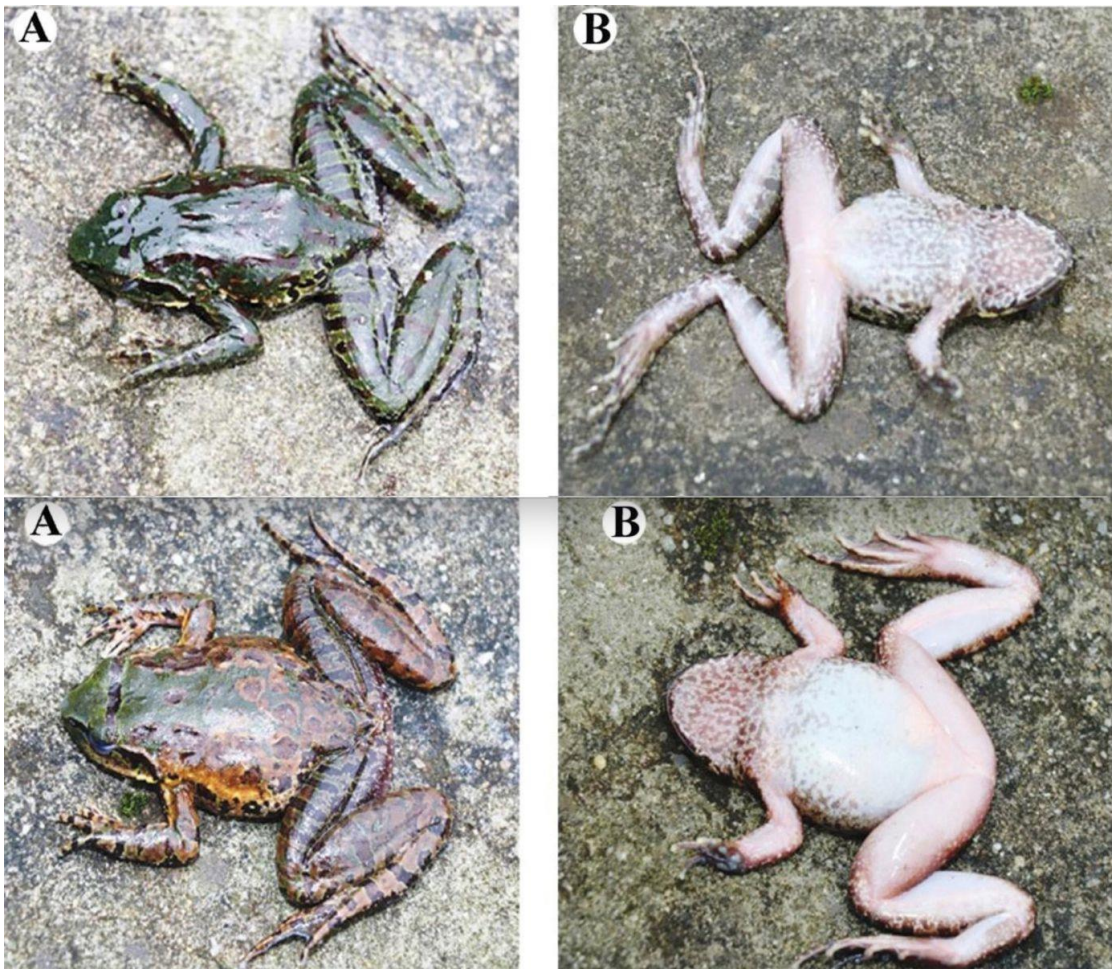
猫儿山掌突蟾 *Leptolalax maoershanensis* (广西自治区) [29]



自 Yuan et al., 2017 [29]

藏南臭蛙 *Odorrana arunachalensis* (西藏自治区) [16]

讨论：Saikia 等[16]提供的属级划分所依据的形态特征并不具备鉴别性，无法将其新种划分至臭蛙属 *Odorrana*。而依据作者提供的鉴别特征（如钝宽头部）及图片，该物种极可能归属于倭蛙属 *Nanorana*。



自 Saikia 等[16]. 上行：正模雄性；下行：副模雌性

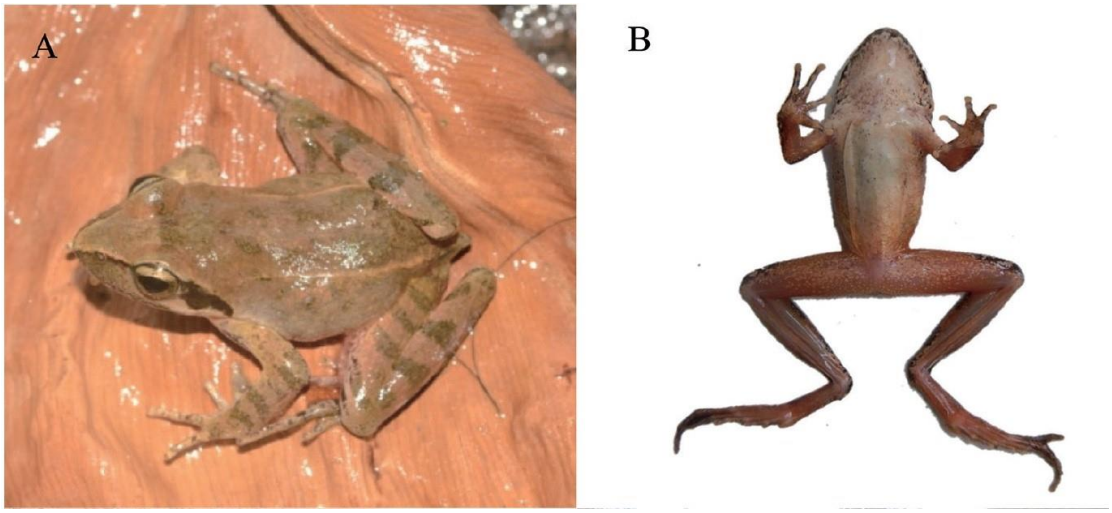
南昆山琴蛙 *Nidirana nankunensis* (广东省) [8]

自 Lyu et al., 2017 [8]

大别山林蛙 *Rana dabieshanensis* (安徽省) [20]

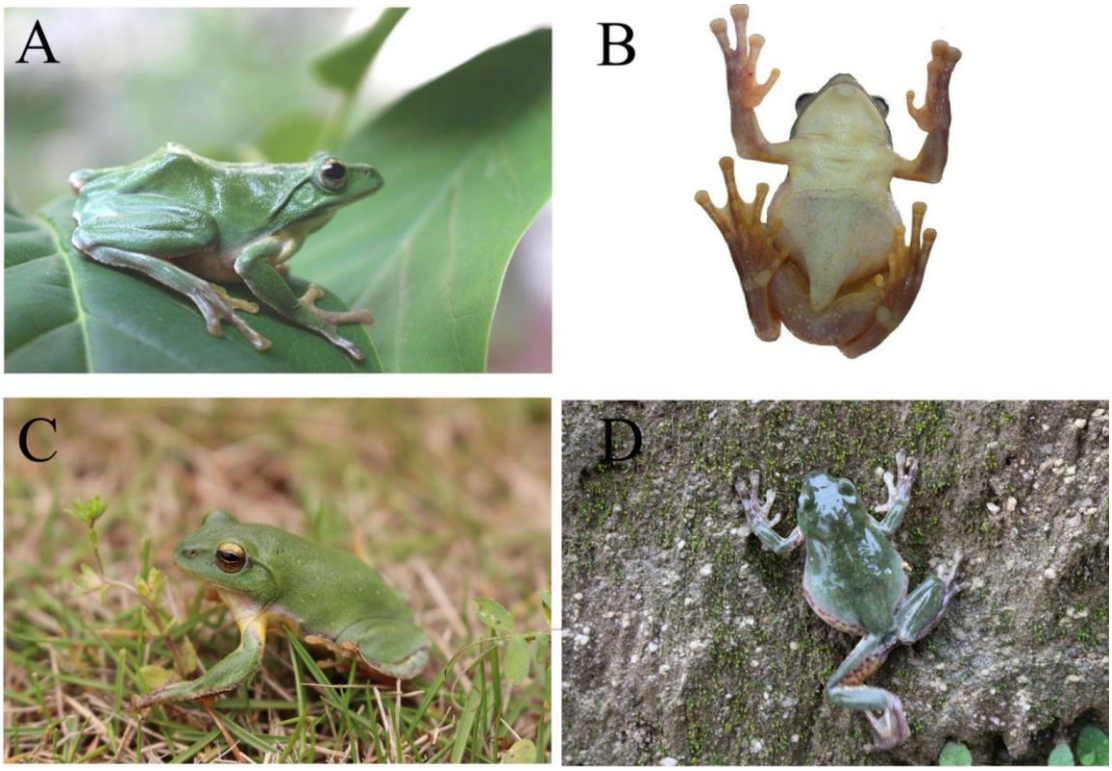
自 Wang et al., 2017 [18]

栾川林蛙 *Rana luanchuanensis* (河南省) [32]



自 Zhao et al., 2017 [32]

安徽树蛙 *Rhacophorus zhoukaiyae* (安徽省) [12]

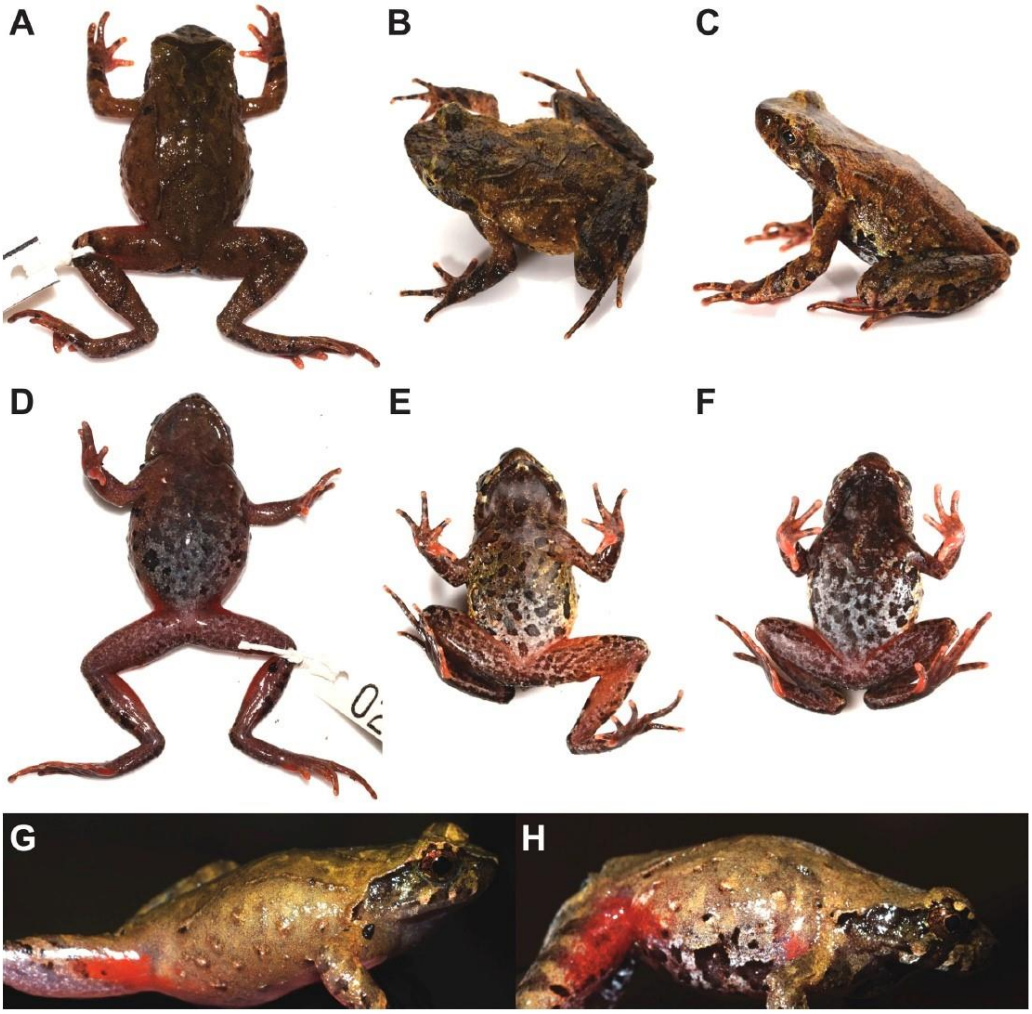


自 Pan et al., 2017 [12]

丽水树蛙 *Rhacophorus lishuiensis* (浙江省) [7]

王聿凡 摄

红股异角蟾 *Megophrys (Xenophrys) rubrimera* (云南省) [18]

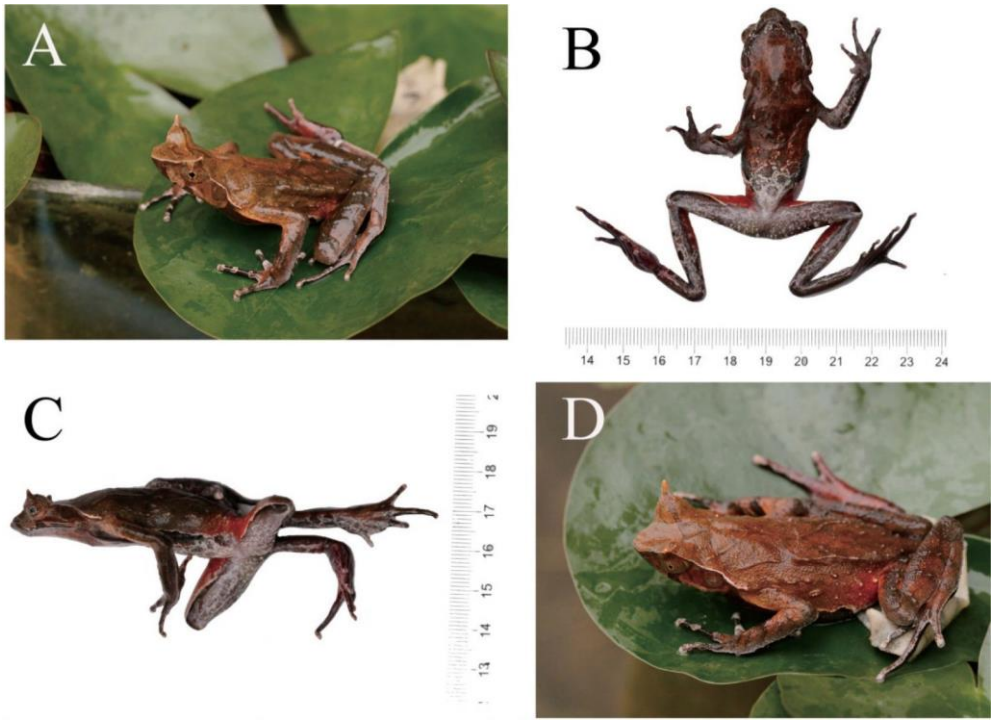


自 Tapley et al., 2017 [18]

南澳岛异角蟾 *Xenophrys insularis* (广东省) [21]

自 Wang et al., 2017 [21]

荔波异角蟾 *Xenophrys liboensis* (贵州省) [31]

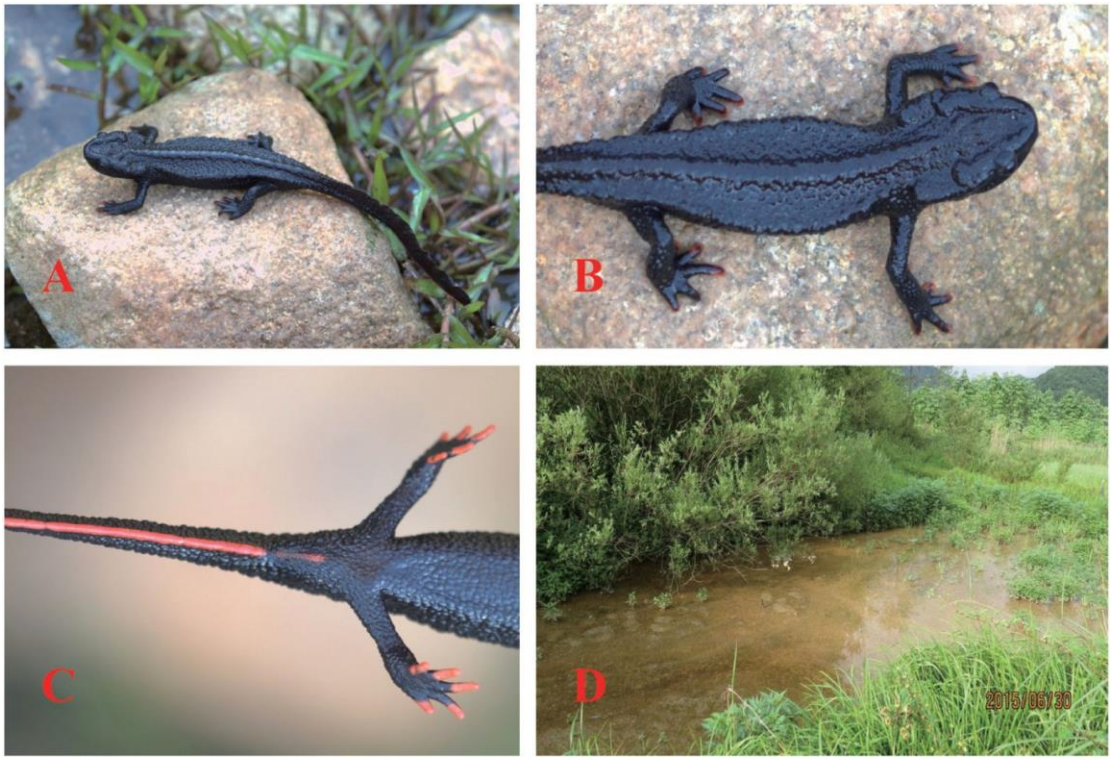


自 Zhang et al., 2017 [31]

丽水异角蟾 *Xenophrys lishuiensis* (浙江省) [25]

王聿凡 摄

安徽疣螈 *Tylototriton anhuiensis* (安徽省) [13]



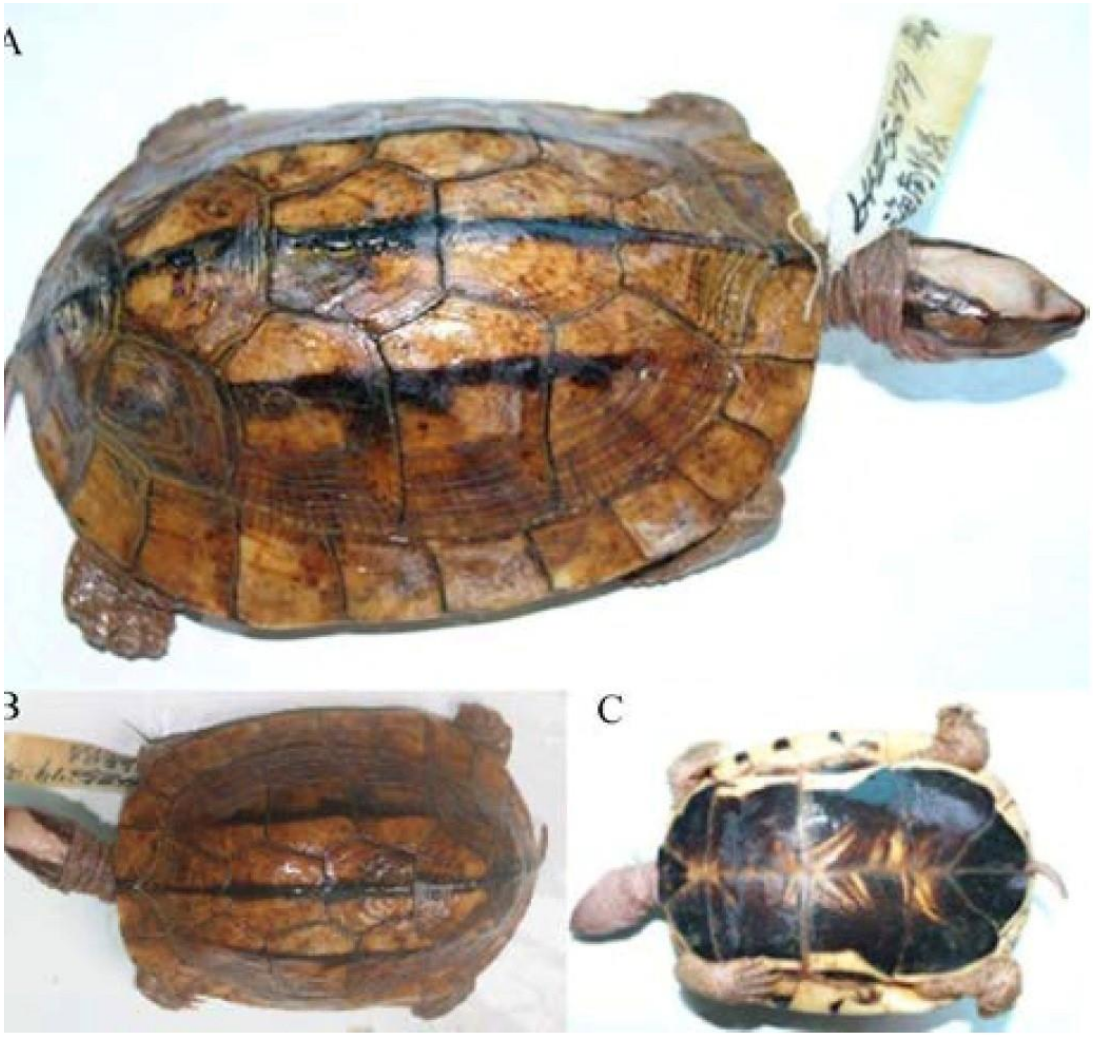
自 Qian et al., 2017 [13]

爬行类 Reptilia

金头闭壳龟大别山亚种 *Coura aurocapitata dabieshani* (安徽省) [19]

自 Torsten et al., 2017. [19]

三线闭壳龟海南亚种 *Coura trifasciata luteocephala* (海南省) [19]

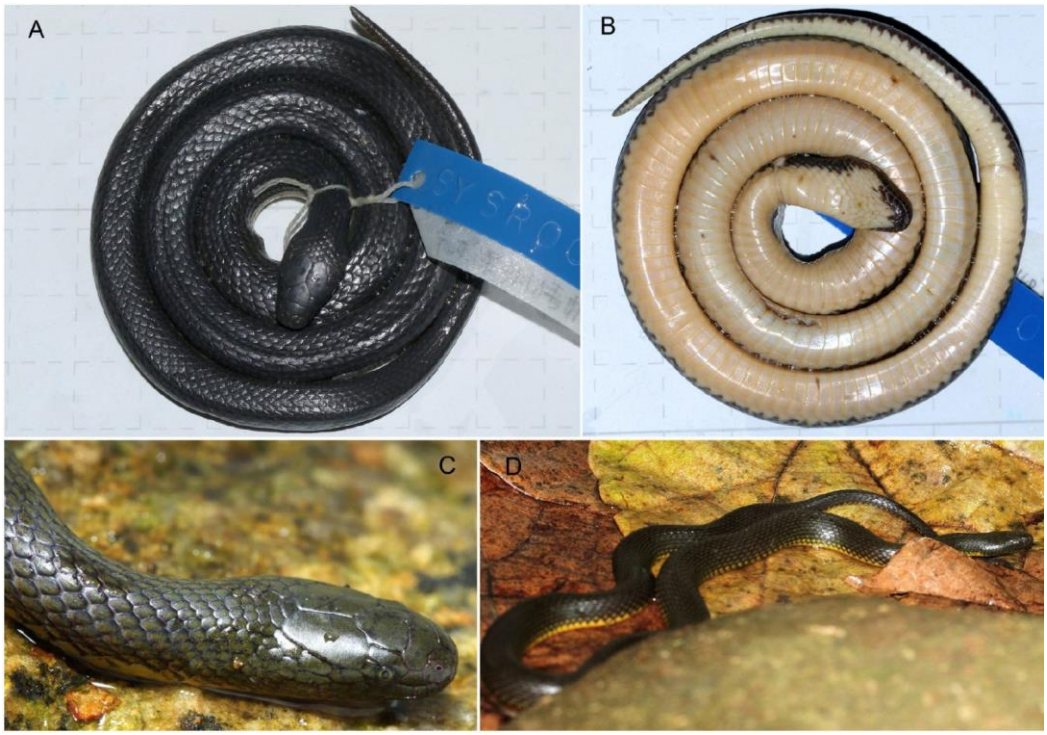


自 Torsten et al., 2017. [19]

红斑高山蝮 *Gloydius rubromaculatus* (青海省) [17]

自 Shi et al., 2017 [17]

深圳后棱蛇 *Opisthotropis shenzhenensis* (广东省) [26]



自 Wang et al., 2017 [26]

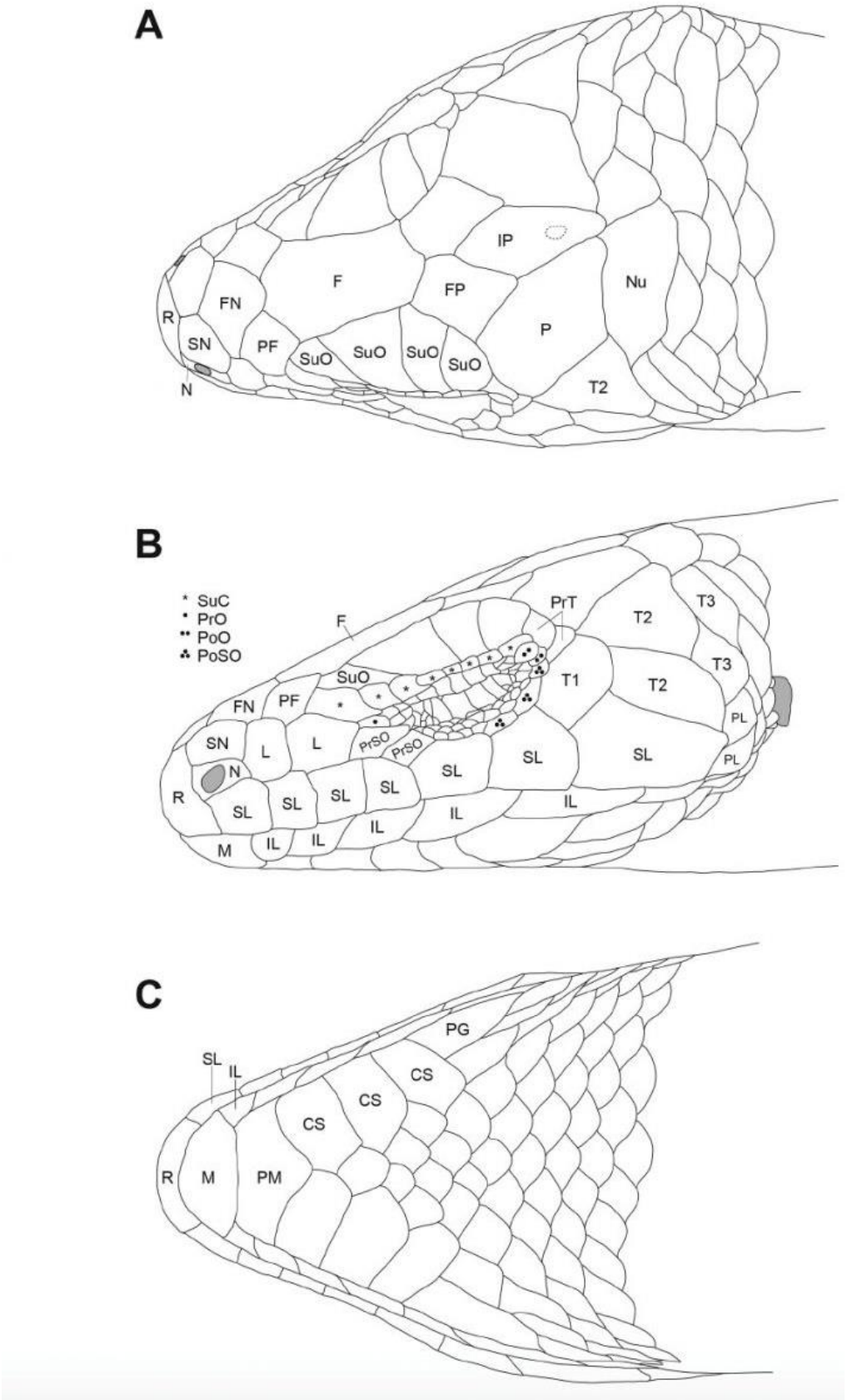
赵氏后棱蛇 *Opisthotropis zhaoermii* (湖南省) [15]

自 Ren et al., 2017 [15]

怒江攀蜥 *Japalura slowinskii* (云南省) [14]

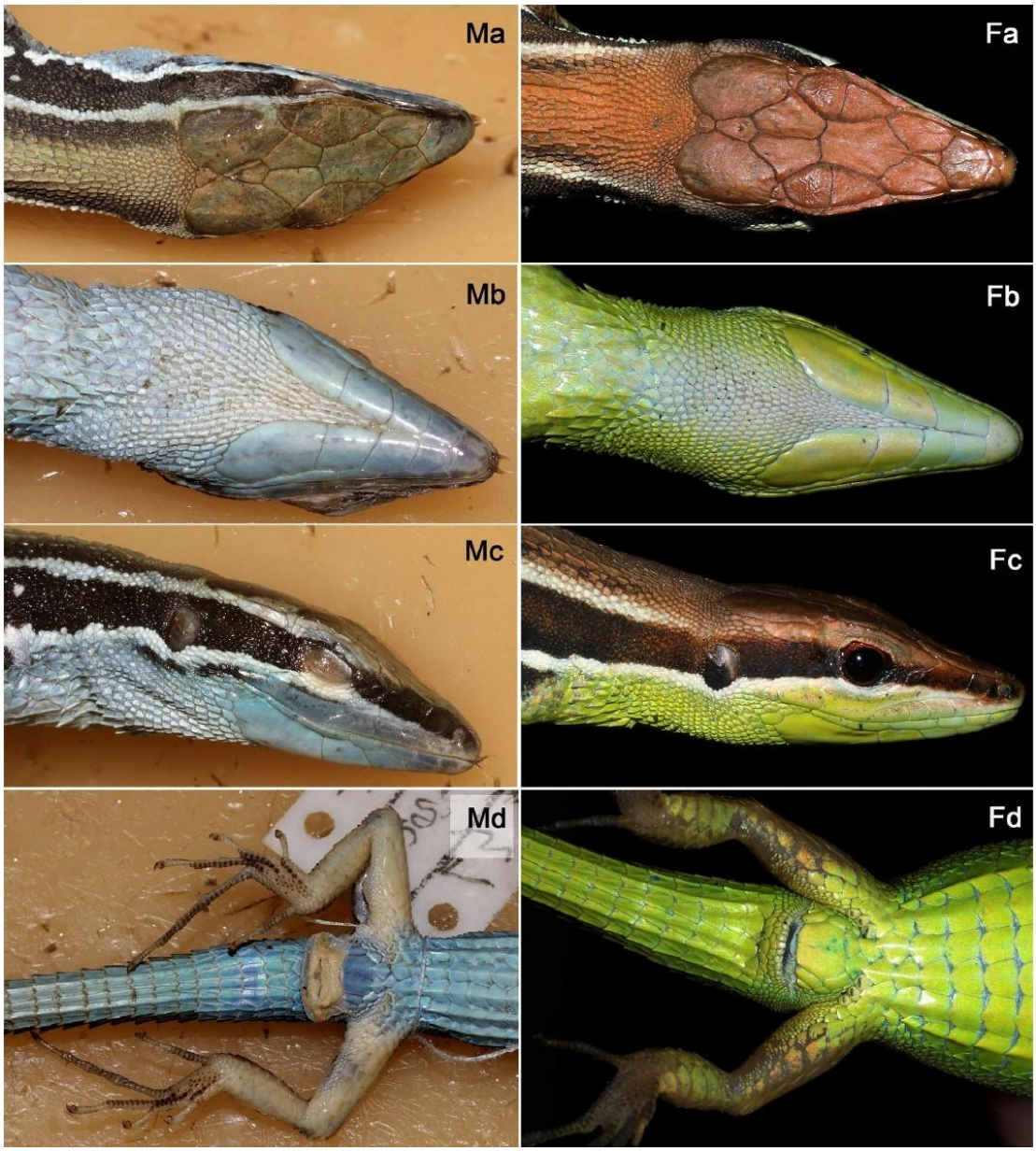
王剴 摄

钓鱼岛石龙子 *Plestiodon takarai* (台湾省钓鱼岛) [6]



自 Kurita et al., 2017 [6]

天井山草蜥 *Takysdromus albomaculosus* (广东省) [27]



自 Wang et al., 2017.[27] 左栏为雄性、右栏为雌性

新纪录及分类变更

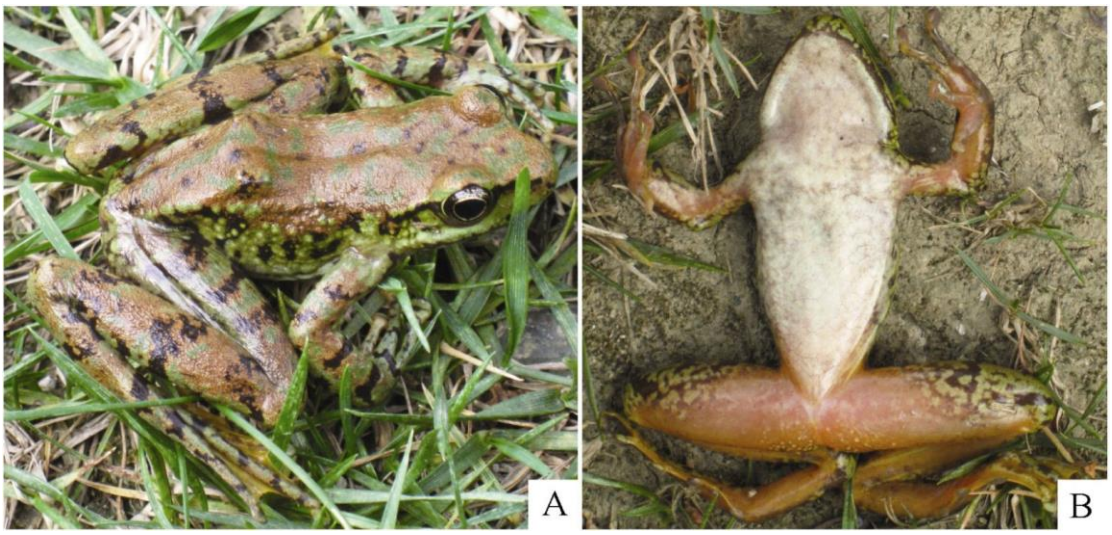
Jiang et al., [10] 记录蔡氏疣螈 *Tylototriton ziegleri* 为中国两栖类新记录，分布于云南省南部。

自 Nishikawa et al., 2013.[11] 雄性正模

Zhang et al., [33] 记录越南瘰螈 *Paramesotriton deloustali* 为中国两栖类新记录，分布于云南省南部。

任金龙 摄

康定湍蛙 *Amolops kangtingensis* 被定为四川湍蛙 *A. mantzorum* 的同物异名 [4]



自 Fei et al., 2017.[4] Topotypic specimen of A. mantzorum.

Lyu et al., [8] 依据分子、形态及求偶鸣叫的声学证据，从拇棘蛙属 *Babina* 中恢复了琴蛙属 *Nidirana* 的有效性。同时，*腹斑蛙 N. caldwelli* 被列为弹琴蛙 *N. adenopleura* 的同物异名。依据其研究结果，琴蛙属目前包括 8 种，即琉球琴蛙 *N. okinawana*、弹琴蛙 *N. adenopleura*、海南琴蛙 *N. hainanensis*、沙巴琴蛙 *N. chapaensis*、仙琴蛙 *N. daunchina*、林琴蛙 *N. lini*、南昆山琴蛙 *N. nankunensis* 以及滇蛙 *N. pleuraden*。

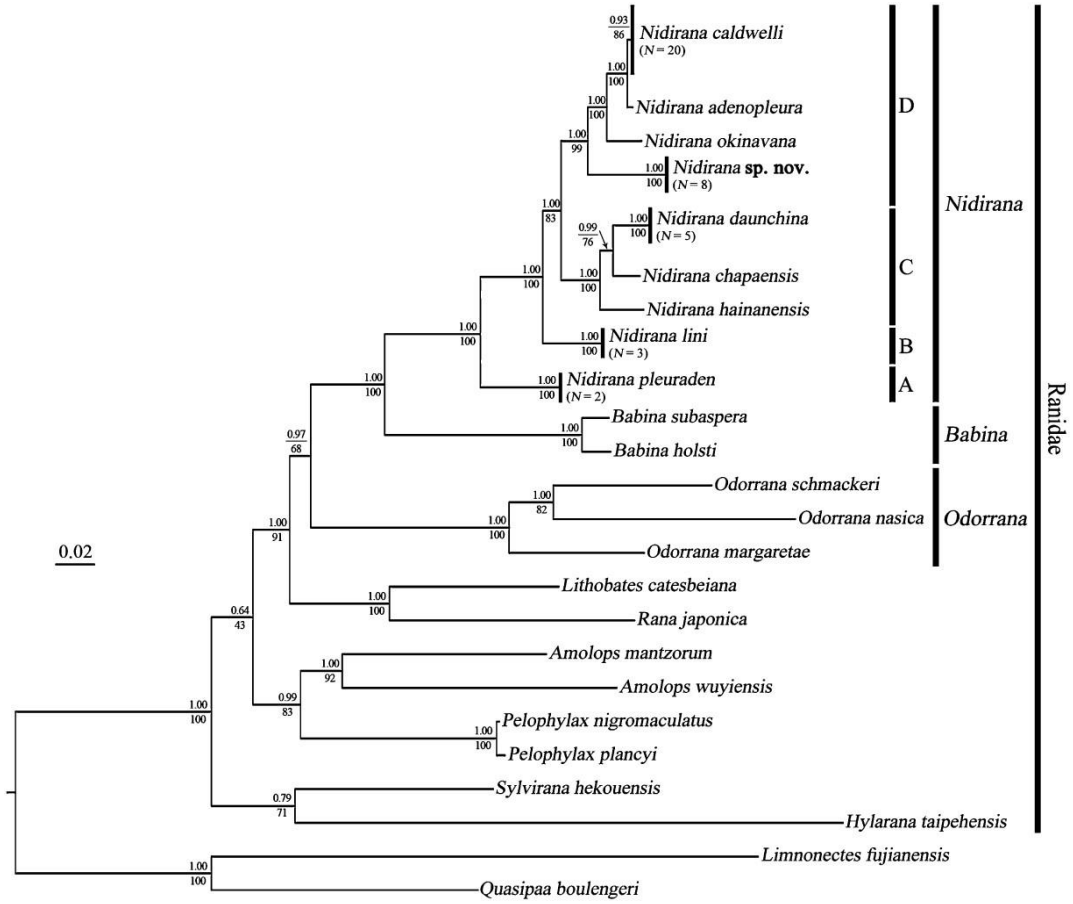
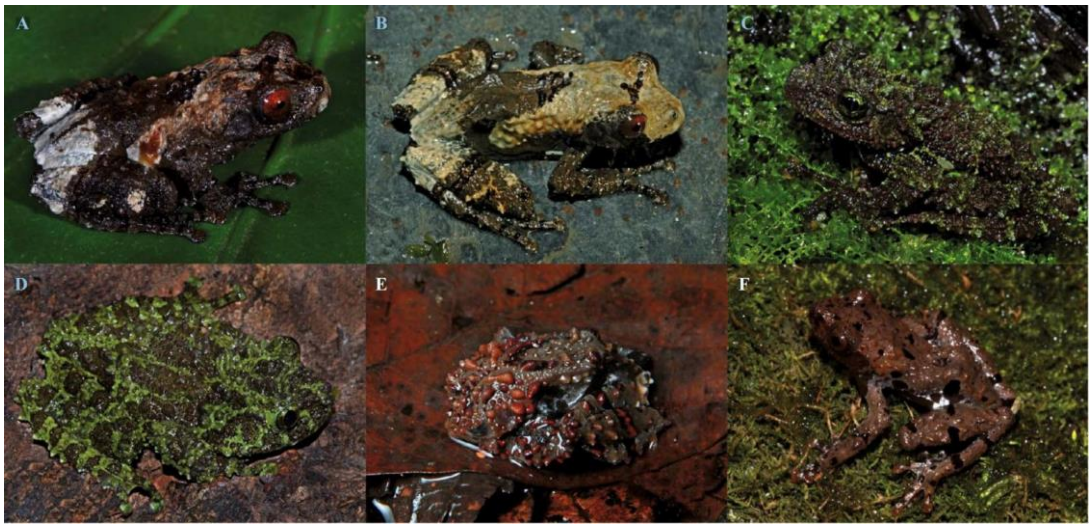


Figure 2. Bayesian inference and maximum-likelihood phylogenies. Numbers above branches indicate Bayesian posterior probabilities and numbers below branches are bootstrap support for maximum likelihood (1000 replicates) analysis.

自 Lyu et al., 2017 [8]

依据形态学数据，Hou et al., [9] 将广西棱皮树蛙 *Theloderma kwangsiense* 列为北部湾棱皮树蛙 *T. corticale* 的同物异名. 同时文章首次报道双色棱皮树蛙 *T. bicolor* 在中国的分布记录。依据研究结果，中国目前记录分布有棱皮树蛙属物种 6 种，包括了白斑棱皮树蛙 *T. albopunctatum*、背崩棱皮树蛙 *T. baibengense*、双色

棱皮树蛙 *T. bicolor*、北部湾棱皮树蛙 *T. corticale*、棘棱皮树蛙 *T. moloch*、以及红吸盘棱皮树蛙 *T. rhododiscus*. [9]



From Hou et al., 2017. [9] A–F 分别为(A) *T. albopunctatum*, (B) *T. baibengense*, (C) *T. bicolor*, (D) *T. corticale*, (E) *T. moloch*, 及 (F) *T. rhododiscus*

Chen et al., [2] 依据形态，分子和地理分布数据，建议从广义角蟾属 *Megophrys* sensu lato 中恢复无耳蟾属（*Atympanophrys*）和异角蟾属（*Xenophrys*），真正的角蟾属局限分布在巽他古陆（Sundaland）。中国先前记录的广义角蟾属物种现被归为无耳蟾属及异角蟾属属下。此外，依据分子数据，记录一中国新纪录，茅索异角蟾 *Xenophrys maosonensis*，分布于我国云南省东南部。

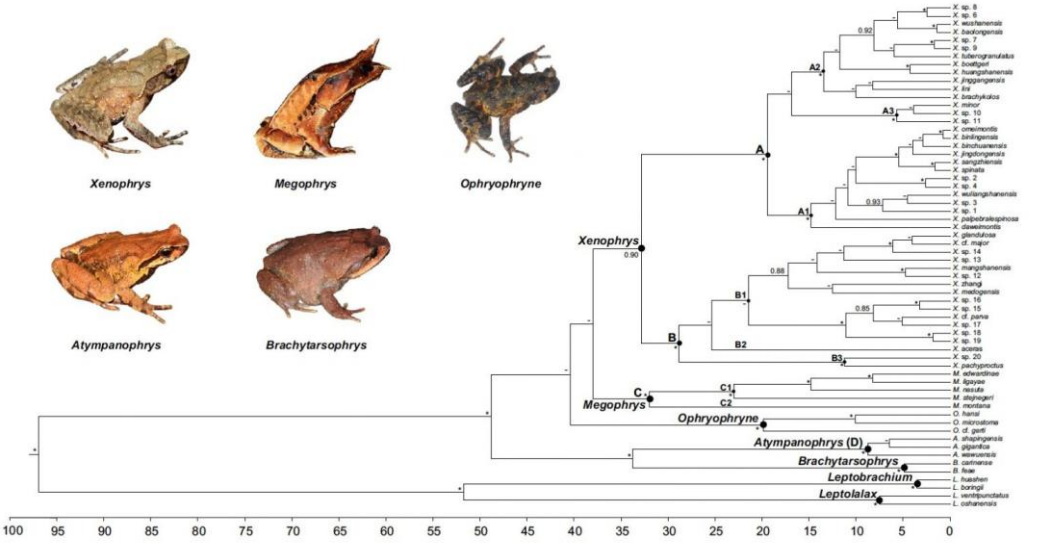


Fig. 5. Bayesian species tree of *Megophrys sensu lato* inferred using *BEAST of the three nuclear genes (*BDNF*, *RAG1*, *RHOD*). Numbers near branches are posterior probabilities (PP). Asterisks denote PP ⩾ 0.95 and "–" denotes low support (PP < 0.85) in our analysis. The capital letters (A–D) above branch correspond to Clade IDs in Table 1, Fig. 1 and Fig. S2.

From Chen et al., 2017 [2]

依据形态及分子数据，Kurita et al., [6]将中国石龙子白斑亚种提升为种，即白斑石龙子 *Plestiodon chinensis leucostictus*，分布于台湾东部。而因为形态重叠且分子差异较小，作者建议将中国石龙子台湾亚种 *P. c. formosensis* 列为指名亚种 *P. c. chinensis* 的同物异名 [6]

自 Kurita et al., 2017. [6] 左栏：中国石龙子台湾亚种 *Plestiodon chinensis formosensis*；右栏：白斑石龙子 *P. leucostictus*. 自上而下各行分别代表同种的不同年龄阶段（最上行为幼体）

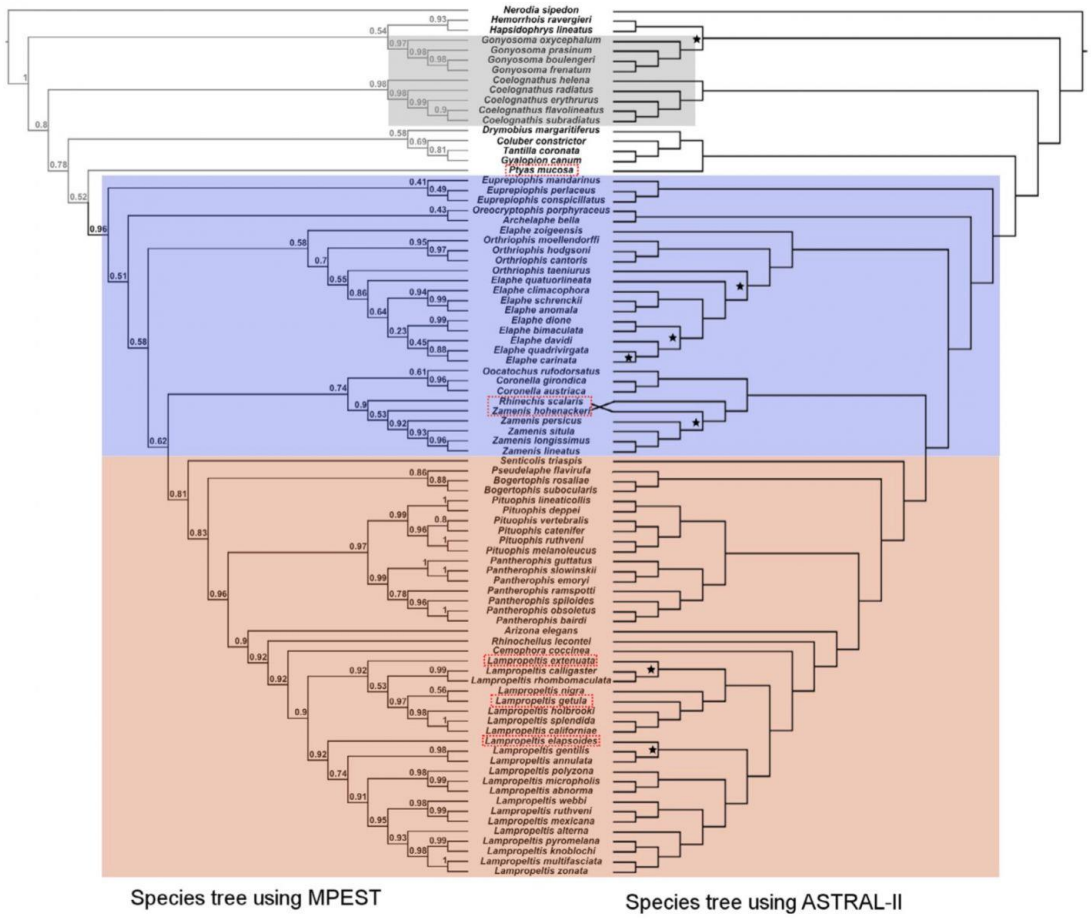
自上世纪采集后，Wang et al., [23]首次于野外再次发现玉龙攀蜥 *Japalura yulongensis* 活体，同时于云南西北部新发现玉龙攀蜥种群，增补其生态、保育及分布数据。

自 Wang et al., 2017 [23]

Wang et al., [26] 依据新采标本，对福建后棱蛇 *Opisthotropis maxwelli* 及香港后棱蛇 *O. andersonii* 进行了再描述。

自 Wang et al., 2017 [26]. 左侧两栏：福建后棱蛇 *Opisthotropis maxwelli*；右侧两栏：香港后棱蛇 *O. andersonii*.

依据全基因组数据，Chen et al., [3] 将晨蛇属 *Orthriophis* 重新划归为锦蛇属 *Elaphe* 的同物异名，随之坎氏锦蛇 *O. cantoris*，南峰锦蛇 *O. hodgsoni*，百花锦蛇 *O. moellendorffi* 以及黑眉锦蛇 *O. taeniurus* 又重新回归锦蛇属。



自 Chen et al., 2017 [3]

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