Table S1. The information of the samples used in this study.

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| --- | --- | --- | --- |
| Species | Length/bp | GeneBank Accession No. | References |
| *Amolops chunganensis* | 16,795 | KX645666 | This study |
| *Amolops loloensis* | 18,926 | NC\_029250 | Xue et al., 2015 |
| *Amolops mantzorum* | 17,744 | NC\_024180 | Shan et al., 2016 |
| *Amolops ricketti* | 17,772 | NC\_023949 | Li et al., 2014a |
| *Amolops tuberodepressus* | 18,348 | KR559270 | Zhang et al., 2015 |
| *Amolops wuyiensis* | 17,797 | NC\_025591 | Huang et al., 2014 |
| *Quasipaa boulengeri* | 16,672 | KX645665 | This study |
| *Quasipaa boulengeri* | 15,106 | KF199152 | Zhang and Yu, 2013 (Direct submission) |
| *Quasipaa boulengeri* | 17,741 | NC\_021937 | Shan et al., 2014 |
| *Quasipaa exilispinosa* | 14,903 | KF199151 | Zhang et al., 2013 (Direct submission) |
| *Quasipaa jiulongensis* | 15,072 | KF199149 | Zhang and Yu, 2013 (Direct submission) |
| *Quasipaa spinosa* | 18,012 | NC\_013270 | Zhou et al., 2009 |
| *Quasipaa shini* | 14,943 | KF199148 | Zhang et al., 2013 (Direct submission) |
| *Quasipaa verruspinosa* | 15,063 | KF199147 | Zhang and Yu, 2013 (Direct submission) |
| *Quasipaa yei* | 17,072 | NC\_024843 | Chen et al., 2015 |
| *Odorana tormotus* | 17,962 | NC\_009423 | Su et al., 2007 |
| *Odorana margaretae* | 17,903 | KJ815050 | Chen et al., 2014 |
| *Odorrana ishikawae* | 21,020 | AB511282 | Kurabayashi et al., 2010 |
| *Rana catesbeiana* | 17,682 | AB761267 | Kakehashi et al., 2012 |
| *Rana chensinensis* | 18,808 | NC\_023529 | Li et al.,2014b |
| *Rana kunyuensis* | 22,255 | NC\_024548 | Li et al., 2014c |
| *Rana dybowskii* | 18,864 | NC\_023528 | Li et al., 2014b |
| *Hoplobatrachus rugulosus* | 16,903 | KC196066 | Pan et al., 2012 (Direct submission) |
| *Hoplobatrachus tigerinus* | 20,462 | NC\_014581 | Alam et al., 2010 |
| *Fejervarya multistriata* | 17,750 | NC\_029754 | Huang and Tu, 2016 (Direct submission) |
| *Fejervarya limnocharis* | 17,717 | NC\_005055 | Liu, 2005 |
| *Fejervarya cancrivora* | 17,843 | NC\_012647 | Ren, 2009 |
| *Nanorana pleskei* | 17,660 | NC\_016119 | Chen et al., 2011 |
| *Nanorana parkeri* | 17,837 | NC\_026789 | Jiang et al, 2015 |
| *Nanorana taihangnica* | 21,322 | KF199146 | Zhang et al., 2013 (Direct submission) |
| *Limnonectes fujianensis* | 17,654 | NC\_007440 | Nie, Hu and Zhang, 2005 (Direct submission) |
| *Limnonectes bannaensis* | 16,867 | AY899242 | Zhang et al., 2009 |
| *Limnonectes fragilis* | 16,640 | AY899241 | Nie and Zhang, 2005 (Direct submission) |
| *Euphlyctis hexadactylus* | 20,280 | NC\_014584 | Alam et al., 2010 |
| *Occidozyga martensii* | 18,321 | NC\_014685 | Li et al., 2014d |
| *Bufo gargarizans* | 17,277 | NC\_008410 | Cao et al., 2006 |
| *Bufo japonicus* | 17,757 | NC\_009886 | Igawa et al, 2008 |
| *Hyla chinensis* | 18,180 | NC\_006403 | Zhang P., 2005 |
| *Hyla japonica* | 19,519 | NC\_010232 | Igawa et al., 2008 |
| *Kaloula pulchra* | 16,818 | NC\_006405 | Zhang P., 2005 |
| *Microhyla ornata* | 16,730 | NC\_009422 | Nie and Cao, 2007 (Direct submission) |
| *Pelophylax nigromaculata* | 17,804 | NC\_002805 | Sumida et al., 2001 |
| *Pelophylax plancyi* | 17,822 | NC\_009264 | Nie et al., 2007 (Direct submission) |
| *Glandirana rugosa* | 17,426 | KF771341 | Xia et al., 2014 |
| *Glandirana tientaiensis* | 17,347 | KF771342 | Xia et al., 2014 |
| *Buergeria buergeri* | 19,959 | NC\_008975 | Sano, 2004 |
| *Rhacophorus schlegelii* | 21,359 | NC\_007178 | Sano, 2005 |
| *Mantella madagascariensis* | 22,874 | NC\_007888 | Kurabayashi, 2006 |
| *Xenopus laevis* | 17,553 | NC\_001573 | Roe et al., 1985 |
| *Xenopus tropicalis* | 17,610 | NC\_006839 | Macey et al., 2004 (Direct submission) |
| *Pelobates cultripes* | 17,384 | NC\_008144 | Gissi et al., 2006 |

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