

INTRODUCTION

ROBERT F. INGER'S SYSTEMATICS AND ZOOGEOGRAPHY OF PHILIPPINE AMPHIBIA

By Rafe M. Brown

For students of Southeast Asian herpetological diversity, biogeography, and systematics, there are a few seminal works that should be considered “required reading.” Such classics must be kept readily at hand for many purposes, including quick reference, source of primary data, context for hypothesis testing, and contemplative review. One such work is Robert Inger’s *Systematics and Zoogeography of Philippine Amphibia*, published as part of the results of the Chicago Natural History Museum’s Philippine Zoological Expedition, 1946–1947 (Hoogstral, 1951; Inger, 1954). Inger’s monograph is widely recognized as an Asian herpetological milestone and yet I suspect that its true impact has yet to be fully appreciated.

It is useful to think of the history of Philippine herpetology as having unfolded in five distinct periods (Brown *et al.*, 2002). These include the initial period of exploration when early collectors and explorers conveyed specimens to American and European museums, resulting in the miscellaneous publications of Boulenger, Günther, Peters, Boettger Stejneger and others). Second, the career of E. H. Taylor (1913–1975) resulted in a lengthy and productive series of taxonomic publications including descriptions of many of the truly spectacular Philippine endemics. The third phase was marked by the arrival of R. F. Inger and the publication of his monograph on Philippine Amphibia in 1954. The fourth and fifth stages of Philippine herpetology include the lengthy collaboration of W. C. Brown and A. C. Alcala (1958–2000) and, finally, the present day, on-going effort to review the amphibians and reptiles of the Philippines comprehensively. It is the third period that interests us here. This period marked a turning point in the history of Philippine herpetology. In many ways, Inger’s monograph was the first and last comprehensive systematic treatment of the Philippine Amphibia.

Scanning the contents (p. 183) of Inger’s monograph reveals the extent to which the author attempted a fully comprehensive approach to the subject matter at hand. During a period in which authors seldom explained

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taxonomic decisions or justified their actions, Inger set himself apart by discussing in advance of taxonomic changes (1) the historical context of his work, (2) the geographic framework, (3) the biotic and abiotic environment of the Philippines as a theatre for the evolution of the islands' amphibians, (4) his own taxonomic perspective from which a philosophical species concept was derived, and (5) an explicit explanation of methodology, including frank discussion of potential sources of error.

The monograph includes a key to the genera and well-organized sections enumerating the content of each genus. Each species account includes full treatments: a synonymy, specimens examined, taxonomic notes, diagnosis, description, descriptions of tadpoles (when available), and discussion of secondary sexual characteristics, inter-island variation, and ecological notes, including reproduction. In the case of species represented by multiple differentiated populations or subspecies (most of the taxa), individual accounts also included discussions of the range of observed variation, statistical treatments of morphometric variation, discussion of character differences between the forms, and individual accounts for each subspecific taxon. All of these accounts provide a wealth of information because of the manner in which the data were summarized (by island) and transparently presented to readers. Additionally, because of the often very brief nature of many earlier taxonomic papers, Inger's inclusion of illustrations of many taxa and character states was the first of its kind in the scientific literature.

The work concludes with a comprehensive treatment of the zoogeography of the amphibians of the Philippines, including an introduction and discussion of Wallace's Line, an extremely thorough and useful geological review including delimitation of Pleistocene Aggregate Island Complexes (so often attributed to other workers, e.g., Heaney, 1985; Voris, 2000; Brown & Diesmos, 2002), a discussion of the composition of the fauna with particular reference to endemic (vs. non-endemic) species, a discussion of the reliability of distributional data, and a formal faunal division of the Philippine islands. Finally, Inger provided a thoughtful evaluation of amphibian dispersal, including treatment of its ecological aspects, modes, probable routes, and the timing of faunal entry into the Philippines from surrounding landmasses.

The end result is that 1954 marked a major shift in emphasis in Philippine herpetological literature—from purely taxonomic to more inclusive and widely varied subjects. Although there are numerous exceptions before and after this date, 1954 marks an important point at which herpetologists in the Philippines were held to higher standards. It also set the stage for Inger's own equally comprehensive works on Borneo

(Inger, 1966, 1999; Inger & Tan, 1996). Subsequent workers benefited from this more conservative and well-rounded approach, and later revisionary works (e.g., Leviton 1963; Brown & Alcala, 1970, 1978, 1980, 1994) relied heavily on Inger's monograph for data, content, and useful comparisons (Brown *et al.*, 2002). The higher standards set by Inger included improvements in general quality, taxonomic conservativeness, reasonable caution before implementing taxonomic changes, proper and thorough diagnostic comparisons, use of statistical treatments of real data, and the presentation of thorough, consistently formatted, standardized species descriptions. Robert Inger was the first systematist working in the Philippines to adopt and then consistently apply an explicitly stated species concept (The Polytypic Species Concept, a variant of the popular "Biological Species Concept") to Philippine amphibians. This fact alone sets his work apart from workers on both sides of the 1954 milestone. It has also served as an inspiration for more recent comprehensive attempts to review Philippine amphibians within the context of lineage-based or evolutionary species concepts (Diesmos, *et al.*, 2002; Brown *et al.*, 2002; Brown & Diesmos, 2002).

Originals of Inger's monograph have become increasingly rare, and now typically fetch upwards of US\$200 for used copies that are infrequently available through rare book dealers. After working from a second-generation photocopy for nearly ten years, I found my own copy for sale from a book dealer for \$135; since that time I have seen few other copies become available and these have sold quickly for high prices. The present effort to reprint Inger's important work will allow it to be used and appreciated by herpetologists all over the world. This is especially important given the recent emergence of wide-scale interest in Philippine herpetology and the increasing number of Filipino students who are seeking the primary source publications that document the incredible diversity of their natural heritage. I have no doubt that history will remember and appreciate Robert Inger's contribution to that heritage.

Inger's Classification and Current Nomenclatural Status

Inger recognized a total of 56 species in 18 genera. Eight species (*Megophrys monticola*, *Rana macrodon*, *R. microdisca*, *R. everetti*, *R. signata*, *Polypedates leucomystax*, *Kaloula baleata*, and *K. conjuncta*) he further subdivided into a total of 21 subspecies. Numerous taxonomic changes have occurred in the intervening 52 years and I have attempted to

summarize these in Table 1. Splitting of genera has changed the total number of higher taxa recognized in the country. First, the genus *Hyla* is no longer considered native to the Philippines. Additionally, we now also recognize the caecilian genus *Caudacaecilia* (for *C. weberi*, a Palawan endemic, resurrected from the synonymy of *Ichthyophis monochrous*) and the megophryid genus *Leptobrachium* (for the species currently recognized as *L. cf. hasseltii*). Inger's *Micrixalus mariae* has been transferred to the genus *Ingerana*, and species of the genus *Cornufer* have been transferred to the genus *Platymantis*. There are now a total of 22 recognized native genera of Philippine amphibians (*Ichthyophis*, *Caudacaecilia*, *Barbourula*, *Leptobrachium*, *Megophrys*, *Bufo*, *Pelophryne*, *Ansonia*, *Occidozyga*, *Rana*, *Limnonectes*, *Fejervarya*, *Staurois*, *Ingerana*, *Platymantis*, *Nyctixalus*, *Rhacophorus*, *Philautus*, *Chaperina*, *Kalophrynus*, *Kaloula*, and *Oreophryne*), plus introduced species of the genera *Hoplobatrachus*, *Rana*, *Kaloula* and *Bufo* for a total of 23 genera of Philippine amphibians. We now recognize a total of 105 species of Philippine amphibians, 84 of which are considered endemic to the country. At least five species are non-native: two have presumably been introduced during the last two centuries (*Bufo marinus* and *Rana erythraea*), and three (*Kaloula pulchra*, *Rana catesbeiana*, and *Hoplobatrachus chinensis*) have been introduced within the last several decades. For reference, I include a checklist of the currently recognized Amphibia of the Philippines (Table 2). *Polypedates hecticus* and *Philautus alticola* are provisionally included in this list with the caveat that their taxonomic status is questionable and in need of verification (Brown & Alcalá, 1994).

Rafe Brown
Lawrence, Kansas
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Table 1. Inger's classification of Philippine Amphibia. Entries include the original name and source, the name used by Inger, the current status of each taxon, the taxonomic authority of the revised name, and additional comments. Inger's synonyms are included following species he recognized.

Original Name	Original Source	Inger's name
Ichthyophiidae		
<i>Ichthyophis weberi</i>	Taylor, 1920	<i>Ichthyophis monochrous</i>
<i>Ichthyophis glandulosus</i>	Taylor, 1923	<i>Ichthyophis monochrous</i>
Bombinatoridae		
<i>Barbourula busuangensis</i>	Taylor and Noble, 1924	<i>Barbourula busuangensis</i>
Megophryidae		
Genus <i>Leptobrachium</i>		
<i>Leptobrachium hasseltii</i>	(Müller in Tschudi, 1828)	<i>Megophrys hasselti</i>
Genus <i>Megophrys</i>		
<i>Megophrys ligayae</i>	Taylor, 1920	<i>Megophrys monticola ligayae</i>
<i>Megophrys stejneri</i>	Taylor, 1920	<i>Megophrys monticola stejneri</i>
Bufoidea		
Genus <i>Bufo</i>		
<i>Bufo philippinicus</i>	Boulenger, 1887	<i>Bufo biporcatus philippinicus</i>
<i>Bufo divergens</i>	Mocquard, 1890	Synonym of <i>Bufo biporcatus philippinicus</i>
<i>Bufo marinus</i>	Linnaeus, 1758	<i>Bufo marinus</i>
Genus <i>Pelophryne</i>		
<i>Pelophryne albotaeniata</i>	Barbour, 1938	<i>Pelophryne albotaeniata</i>
<i>Hylapesia brevipes</i>	Peters, 1867	<i>Pelophryne brevipes</i>
<i>Nectophryne lighti</i>	Taylor, 1920	Synonym of <i>Pelophryne brevipes</i>
Genus <i>Ansonia</i>		
<i>Ansonia muelleri</i>	Boulenger, 1887	<i>Ansonia muelleri</i>
<i>Bufo mcgregori</i>	Taylor, 1922	Synonym of <i>Ansonia muelleri</i>
Ranidae		
Genus <i>Oecidozyga</i>		
<i>Oxyglossus laevis</i>	Günther, 1858	<i>Oecidozyga laevis laevis</i>
<i>Micrixalus diminutiva</i>	Taylor 1922	<i>Oecidozyga diminutiva</i>

Current status	Updated Source	Comments
<i>Caudacaecilia weberi</i>	Taylor, 1960, 1965, 1968	Resurrected by Taylor, 1960
<i>Ichthyophis glandulosus</i>	Taylor, 1960, 1968	Resurrected by Taylor, 1960
<i>Barbourula busuangensis</i>		
<i>Leptobrachium cf. hasseltii</i>	Inger, 1966	Inger's usage followed Boulenger, 1908
<i>Megophrys ligayae</i>	Iskandar & Colijn, 2000	Listed as full species without justification
<i>Megophrys stejneri</i>	Iskandar & Colijn, 2000	Listed as full species without justification
<i>Bufo philippinicus</i>	Iskandar, 1998	Listed as a full species without justification
<i>Pelophryne albotaeniata</i>		
<i>Pelophryne brevipes</i>		Inger's usage followed Barbour, 1938
<i>Pelophryne lighti</i>	Inger, 1960	Resurrected by Inger, 1960
<i>Ansonia muelleri</i>		
<i>Ansonia mcgregori</i>	Inger, 1960	Resurrected by Inger, 1960
<i>Occidozyga laevis</i>		Inger's spelling followed Smith, 1927
<i>Occidozyga diminutiva</i>		

Original Name	Original Source	Inger's name
Genus <i>Fejervarya</i>		
<i>Rana cancrivora</i>	Gravenhorst, 1829	<i>Rana cancrivora cancrivora</i>
<i>Rana tigrina (part)</i>	Günther, 1858	Synonym of <i>Rana cancrivora</i>
<i>Rana moodiei</i>	Taylor, 1920	Synonym of <i>Rana cancrivora</i>
<i>Rana vittigera</i>	Weigmann, 1834	<i>Rana limnocharis vittigera</i>
Geus <i>Limnonectes</i>		
<i>Rana woodworthi</i>	Taylor, 1923	<i>Rana woodworthi</i>
<i>Rana acanthi</i>	Taylor, 1923	<i>Rana macrodon acanthi</i>
<i>Rana magna</i>	Stejneger, 1909	<i>Rana macrodon magna</i>
		<i>Rana macrodon macrocephala</i> , subsp. nov
		<i>Rana macrodon visayanus</i> , subsp. nov.
<i>Rana palavanensis</i>	Boulenger, 1894	<i>Rana microdisca palavanensis</i>
<i>Rana leytensis</i>	Boettger, 1893	<i>Rana microdisca leytensis</i>
<i>Hylarana mindanensis</i>	Girard, 1853	Synonym of <i>R. leytensis</i>
<i>Rana microdisca leytensis</i>	Mertens, 1929	Synonym of <i>R. leytensis</i>
<i>Rana parva</i>	Taylor, 1920	<i>Rana parva</i>
<i>Rana micrixalus</i>	Taylor, 1923	<i>Rana micrixalus</i>
Genus <i>Rana</i>		
<i>Rana everetti</i>	Boulenger, 1882	<i>Rana everetti everetti</i>
<i>Rana mearnsi</i>	Stejneger, 1905	Synonym of <i>R. e. everetti</i>
<i>Rana dubita</i>	Taylor, 1922	Synonym of <i>R. e. everetti</i>
<i>Rana luzonensis</i>	Boulenger, 1896	<i>Rana everetti luzonensis</i>
<i>Rana guerreroi</i>	Taylor, 1920	Synonym of <i>R. e. luzonensis</i>
<i>Rana merrilli</i>	Taylor, 1922	Synonym of <i>R. e. luzonensis</i>
<i>Rana tafti</i>	Taylor, 1922	Synonym of <i>R. e. luzonensis</i>
<i>Rana igorota</i>	Taylor, 1922	Synonym of <i>R. e. luzonensis</i>
		<i>Rana everetti albotuberculata</i> , subsp. nov
<i>Rana grandocula</i>	Taylor, 1920	<i>Rana signata grandocula</i>

Current status	Updated Source	Comments
<i>Fejervarya cancrivora</i>	Iskandar, 1998	Listed as a full species without justification
<i>Fejervarya vittigera</i>	Dubois, 1980	
<i>Limnonectes woodworthi</i>		See Evans <i>et al.</i> , 2003
<i>Limnonectes acanthi</i>	Inger, 1958; Dubois, 1987	See Evans <i>et al.</i> , 2003
<i>Limnonectes magnus</i>	Inger, 1958; Dubois, 1987	See Evans <i>et al.</i> , 2003
<i>Limnonectes macrocephalus</i>	Inger, 1958; Dubois, 1987	See Evans <i>et al.</i> , 2003
<i>Limnonectes visayanus</i>	Inger, 1958; Dubois, 1987	See Evans <i>et al.</i> , 2003
<i>Limnonectes palavanensis</i>	Dubois, 1987	See Evans <i>et al.</i> , 2003
<i>Limnonectes leytensis</i>	Dubois, 1987	Inger's usage followed Mertens, 1929; See Evans <i>et al.</i> , 2003
<i>Limnonectes parvus</i>	Dubois, 1987;	See Evans <i>et al.</i> , 2003
<i>Limnonectes micrixalus</i>	Dubois, 1987	
<i>Rana everetti</i>	Brown <i>et al.</i> , 2000	
<i>Rana luzonensis</i>	Brown <i>et al.</i> , 2000	
<i>Rana igorota</i>	Brown <i>et al.</i> , 2000	
<i>Rana albotuberculata</i>	Brown <i>et al.</i> , 2000	
<i>Rana grandocula</i>	Brown & Guttman, 2002	

Original Name	Original Source	Inger's name
<i>Rana philippinensis</i>	Taylor, 1920	Synonym of <i>R. s. grandocula</i>
<i>Rana yakani</i>	Taylor, 1922	Synonym of <i>R. s. grandocula</i>
<i>Rana moellendorffi</i>	Boettger, 1893	<i>Rana signata moellendorffi</i>
<i>Rana similis</i>	Günther, 1873	<i>Rana signata similis</i>
<i>Rana melanomenta</i>	Taylor, 1920	<i>Rana melanomenta</i>
<i>Rana erythraea</i>	Schlegel, 1837	<i>Rana erythraea</i>
<i>Rana sanguinea</i>	Boettger, 1893	<i>Rana sanguinea</i>
<i>Rana varians</i>	Boulenger, 1894	Synonym of <i>R. sanguinea</i>
<i>Rana papua (part)</i>	Vav Kampen, 1923	Synonym of <i>R. sanguinea</i>
<i>Hylorana nicobariensis</i>	Stoliczka, 1870	<i>Rana nicobariensis</i> <i>nicobariensis</i>
<i>Rana sanchezi</i>	Taylor, 1920	Synonym of <i>R. nicobariensis</i>
<i>Rana suluensis</i>	Taylor, 1920	Synonym of <i>R. nicobariensis</i>
<i>Ixalus natator</i>	Günther, 1858	<i>Staurois natator</i>
<i>Ixalus guttatus</i>	Boulenger, 1894	Synonym of <i>S. natator</i>
<i>Ixalus nubilus</i>	Mocquard, 1890	Synonym of <i>S. natator</i>
<i>Rana natatrix</i>	Boulenger, 1882	Synonym of <i>S. natator</i>
Genus <i>Ingerana</i>		<i>Micrixalus mariae</i> , sp. nov.
Genus <i>Platymantis</i>		
<i>Hylodes corrugatus</i>	Dumeril, 1853	<i>Cornufer corrugatus</i>
<i>Platymantis plicifera</i>	Günther, 1858	Synonym of <i>C. corrugatus</i>
<i>Platymantis meyeri</i>	Günther, 1973	<i>Cornufer meyeri</i>
<i>Halophila jagori</i>	Peters, 1863	Synonym of <i>C. meyeri</i>
<i>Cornufer laticeps</i>	Taylor, 1920	Synonym of <i>C. meyeri</i>
<i>Cornufer cornutus</i>	Taylor, 1922	<i>Cornufer cornutus</i>
<i>Cornufer subterrestris</i>	Taylor, 1922	<i>Cornufer subterrestris</i>
<i>Cornufer montanus</i>	Taylor, 1922	Synonym of <i>C. subterrestris</i>
<i>Cornufer guentheri</i>	Boulenger, 1882	<i>Cornufer guentheri</i>
<i>Cornufer worcesteri</i>	Stejneger	Synonym of <i>C. guentheri</i>
<i>Philautus polillensis</i>	Taylor, 1922	<i>Cornufer polillensis</i>
<i>Philautus hazelae</i>	Taylor, 1920	<i>Cornufer hazelae</i>
<i>Cornufer rivularis</i>	Taylor, 1922	Synonym of <i>C. hazelae</i>

Current status	Updated Source	Comments
<i>Rana moellendorffi</i>	Brown & Guttman, 2002	
<i>Rana similis</i>	Brown & Guttman, 2002	
<i>Rana melanomenta</i>	Brown & Guttman, 2002	
<i>Rana erythraea</i>		
<i>Rana sanguinea</i>		
<i>Rana nicobariensis</i>		
<i>Staurois natator</i>		Inger's usage followed Cope, 1865
<i>Ingerana mariae</i>	Dubois, 1987	
<i>Platymantis corrugata</i>	Brown & Inger, 1964; Zweifel, 1967	
<i>Platymantis dorsalis</i>	Brown & Inger, 1964	
<i>Platymantis cornuta</i>	Zweifel, 1967	
<i>Platymantis subterrestris</i>	Zweifel, 1967	
<i>Platymantis montana</i>	Zweifel, 1967; Brown <i>et al.</i> , 1997	
<i>Platymantis guentheri</i>	Zweifel, 1967	
<i>Platymantis polillensis</i>	Zweifel, 1967	
<i>Platymantis hazelae</i>	Zweifel, 1967	

Original Name	Original Source	Inger's name
Rhacophoridae		
Genus <i>Rhacophorus</i>		
<i>Rhacophorus pardalis</i>	Günther, 1858	<i>Rhacophorus pardalis pardalis</i>
<i>Rhacophorus rizali</i>	Boettger, 1899	Synonym of <i>R. pardalis</i>
<i>Polypedates appendiculatu</i>	Günther, 1858	<i>Rhacophorus appendiculatus appendiculatus</i>
<i>Rhacophorus phyllopygus</i>	Werner, 1900	Synonym of <i>R. appendiculatus</i>
<i>Rhacophorus chaseni</i>	Smith, 1930	Synonym of <i>R. appendiculatus</i>
<i>Rhacophorus everetti</i>	Boulenger, 1894	<i>Rhacophorus everetti</i>
<i>Leptomantis bimaculata</i>	Peters, 1867	<i>Philautus bimaculatus</i>
<i>Philautus zamboangensis</i>	Taylor, 1922	Synonym of <i>P. bimaculatus</i>
Genus <i>Polypedates</i>		
<i>Hyla leucomystax</i>	Boie in Gravenhorst, 1829	<i>Rhacophorus leucomystax quadrilineatus</i>
<i>Polypedates rugosus</i>	Dumeril & Bibron, 1841	Synonym of <i>R. l. quadrilineatus</i>
<i>Rhacophorus maculatus (part)</i>	Boettger, 1886	Synonym of <i>R. l. quadrilineatus</i>
<i>Rhacophorus leucomystax sexvirgata (part)</i>	Van Kampen, 1923	Synonym of <i>R. l. quadrilineatus</i>
<i>Polypedates linki</i>	Taylor, 1922	<i>Polypedates leucomystax linki</i>
<i>Polypedates macrotis</i>	Boulenger, 1894	Synonym of <i>P. l. linki</i>
<i>Polypedates hecticus</i>	Peters, 1863	<i>Rhacophorus hecticus</i>
Genus <i>Philautus</i>		
<i>Polypedates surdus</i>	Peters, 1863	<i>Rhacophorus surdus</i> <i>Rhacophorus lissobrachius</i> , sp. nov.
<i>Cornufer worcesteri</i>	Stejnegeri, 1905	<i>Rhacophorus emembranatus</i> , sp. nov.
<i>Ixalus acutirostris</i>	Peters, 1867	<i>Philautus acutirostris</i>
<i>Philautus woodi</i>	Stejneger, 1905	Synonym of <i>P. acutirostris</i>
<i>Philautus basilanensis</i>	Taylor, 1922	Synonym of <i>P. acutirostris</i>
<i>Philautus montanus</i>	Taylor, 1920	<i>Philautus alticola</i>
<i>Ixalus leitensis</i>	Boulenger, 1897	<i>Philautus leitensis</i>
<i>Ixalus longicrus</i>	Boulenger, 1894	<i>Philautus longicrus</i>
<i>Ixalus schmackeri</i>	Boettger, 1892	<i>Philautus schmackeri</i>
<i>Ixalus mindorensis</i>	Boulenger, 1897	Synonym of <i>P. schmackeri</i>
<i>Philautus williamsi</i>	Taylor, 1920	<i>Philautus williamsi</i>

Current status	Updated Source	Comments
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<i>Rhacophorus pardalis</i>	Brown & Alcala, 1994	
<i>Rhacophorus appendiculatus</i>	Brown & Alcala, 1994	
<i>Rhacophorus everetti</i>	Brown & Alcala, 1994	
<i>Rhacophorus bimaculatus</i>	Brown & Alcala, 1994	
<i>Polypedates leucomystax</i>	Brown & Alcala, 1994	
<i>Polypedates macrotis</i>	Brown & Alcala, 1994	
<i>Polypedates hecticus</i>	Brown & Alcala, 1994	
<i>Philautus surdus</i>	Brown & Alcala, 1994	
<i>Philautus surdus</i>	Brown & Alcala, 1994	
<i>Philautus worcesteri</i>	Brown, Brown, & Alcala, 1998	
<i>Philautus acutirostris</i>	Brown & Alcala, 1994	
<i>Philautus alticola</i>	Brown & Alcala, 1994	
<i>Philautus leitensis</i>	Brown & Alcala, 1994	
<i>Philautus longicrus</i>	Brown & Alcala, 1994	
<i>Philautus surdus</i>	Brown & Alcala, 1994	

Original Name	Original Source	Inger's name
Genus Nyctixalus		
<i>Hazelia spinosa</i>	Taylor, 1920	<i>Philautus spinosa</i>
Microhylidae		
Genus Chaperina		
<i>Chaperina fusca</i>	Mocquard, 1892	<i>Chaperina fusca</i>
<i>Microhyla leucostigma</i>	Boulenger, 1899	Synonym of <i>C. fusca</i>
<i>Chaperina beyeri</i>	Taylor, 1920	Synonym of <i>C. fusca</i>
<i>Nectophryne picturata</i>	Smith, 1921	Synonym of <i>C. fusca</i>
Genus Kalophrynus		
<i>Kalophrynus pleurostigma</i>	Tschudi, 1838	<i>Kalophrynus pleurostigma</i>
<i>Calophrynus acutirostris</i>	Boettger, 1897	Synonym of <i>K. pleurostigma</i>
<i>Kalophrynus stellatus</i>	Stejneger, 1908	Synonym of <i>K. pleurostigma</i>
Genus Kaloula		
<i>Bombinator baleatus</i>	(Müller, <i>In Oort</i> & Müller 1836)	
<i>Kaloula kalingensis</i>	Taylor, 1922	<i>Kaloula baleata kalingensis</i>
<i>Plectrophus pictus</i>	Duméril and Bibron, 1841	<i>Kaloula picta</i>
<i>Kaloula rigida</i>	Taylor, 1922	<i>Kaloula rigida</i>
<i>Hylaedactylus conjunctus</i>	Peters, 1863	<i>Kaloula conjuncta conjuncta</i>
<i>Kaloula negrosensis</i>	Taylor, 1922	<i>Kaloula conjuncta negrosensis</i> <i>Kaloula conjuncta stickeli</i> , subsp. nov. <i>Kaloula conjuncta meridionalis</i> , subsp. nov.
Genus Oreophryne		
<i>Phrynixalus anulatus</i>	Stejneger, 1908	<i>Oreophryne anulata</i>
<i>Chaperina visaya</i>	Taylor, 1920	Synonym of <i>O. anulata</i>

Current status**Updated Source****Comments**

Nyctixalus spinosus

Brown & Alcalá, 1994

Chaperina fusca

Kalophrynus pleurostigma

Kaloula baleata baleata

Kaloula baleata

Kaloula kalingensis

Ross & Gonzales,
1991

Kaloula picta

Inger's usage followed
Günther, 1858

Kaloula rigida

Kaloula c. conjuncta

Inger's usage followed
Taylor, 1920

Kaloula c. negrosensis

Kaloula c. stickeli

Kaloula c. meridionalis

Oreophryne anulata

Inger's usage followed
Parker, 1934

Table 2. A checklist of currently recognized Philippine amphibian species, prepared in consultation with A. C. Diesmos, A. C. Alcala, and R. I. Crombie (see also Brown *et al.*, 2002; Brown & Diesmos, 2002). The subgeneric/generic alternative names of Dubois (1992; see Inger, 1996, Brown *et al.*, 2000, and Brown and Guttman, 2002, for discussion of their applicability) for some members of the genus *Rana* are included in parentheses. The proposed alternative classification of Frost *et al.* (2006), if adopted by anuran systematists, would result in the additional substitutions of the generic names *Chaunus* (for *Bufo marinus*), *Ingerophrynus* (for *Bufo philippinicus*), *Lithobates* (for *Rana catesbeina*), and *Hydrophylax* (for members of the *Rana everetti* species group). E = endemic; N = non-endemic; I = introduced; * = taxa described by Inger.

Gymnophiona

Ichthyophiidae

Genus *Caudacaecilia*

- | | |
|--|---|
| 1. <i>Caudacaecilia weberi</i> (Taylor 1920) | E |
|--|---|

Genus *Ichthyophis*

- | | |
|---|---|
| 2. <i>Ichthyophis mindanaoensis</i> Taylor 1960 | E |
| 3. <i>Ichthyophis glandulosus</i> Taylor 1923 | E |

Anura

Bombinatoridae

Genus *Barbourula*

- | | |
|---|---|
| 4. <i>Barbourula busuangensis</i> Taylor & Noble 1924 | E |
|---|---|

Megophryidae

Genus *Leptobrachium*

- | | |
|---------------------------------------|---|
| 5. <i>Leptobrachium cf. hasseltii</i> | N |
|---------------------------------------|---|

Genus *Megophrys*

- | | |
|--|---|
| 6. <i>Megophrys ligayae</i> Taylor 1920 | E |
| 7. <i>Megophrys stejneri</i> Taylor 1920 | E |

Bufonidae

Genus *Bufo*

- | | |
|---|---|
| 8. <i>Bufo marinus</i> (Linnaeus 1758) | I |
| 9. <i>Bufo philippinicus</i> Boulenger 1887 | E |

Genus *Pelophryne*

10. *Pelophryne albotaeniata* Barbour 1938 E
11. *Pelophryne brevipes* (Peters 1867) E
12. *Pelophryne lighti* (Taylor 1920) E

Genus *Ansonia*

13. *Ansonia mcgregori* (Taylor 1922) E
14. *Ansonia muelleri* (Boulenger 1887) E

Ranidae

Genus *Occidozyga*

15. *Occidozyga diminutiva* (Taylor 1922) E
16. *Occidozyga laevis* (Günther 1859) N

Genus *Hoplobatrachus*

17. *Hoplobatrachus chinensis*
(Osbeck, 1765; formerly *H. rugulosus*) I

Genus *Staurois*

18. *Staurois natator* (Günther 1859) N

Genus *Ingerana*

19. *Ingerana mariaae* (Inger 1954)* E

Genus *Platymantis*

***Platymantis guentheri* Species Group**

20. *Platymantis banahao* Brown, Alcalá,
Diesmos, & Alcalá 1997 E
21. *Platymantis cornuta* (Taylor 1922) E
22. *Platymantis guentheri* (Boulenger 1882) E
23. *Platymantis insulata* Brown & Alcalá 1970 E
24. *Platymantis luzonensis* Brown, Alcalá,
Diesmos, & Alcalá 1997 E
25. *Platymantis negrosensis* Brown, Alcalá,
Diesmos, & Alcalá 1997 E
26. *Platymantis rabori* Brown, Alcalá,
Diesmos, & Alcalá 1997 E

***Platymantis dorsalis* Species Group**

27. *Platymantis cagayanensis*,
Brown, Alcalá, & Diesmos 1999 E
28. *Platymantis corrugata* (Duméril 1853) E

29. <i>Platymantis dorsalis</i> (Duméril 1853)	E
30. <i>Platymantis indeprensa</i> Brown, Alcala, & Diesmos 1999	E
31. <i>Platymantis levigata</i> Brown & Alcala 1974	E
32. <i>Platymantis mimula</i> , Brown, Alcala, & Diesmos 1997	E
33. <i>Platymantis naomiae</i> Alcala, Brown & Diesmos 1998	E
34. <i>Platymantis pseudodorsalis</i> Brown, Alcala, & Diesmos 1999	E
35. <i>Platymantis pygmaea</i> Alcala, Brown, & Diesmos 1998	E
36. <i>Platymantis spelaea</i> Brown and Alcala 1982	E
37. <i>Platymantis taylori</i> Brown, Alcala, & Diesmos 1999	E
<i>Platymantis hazelae</i> Species Group	
38. <i>Platymantis hazelae</i> (Taylor 1920)	E
39. <i>Platymantis isarog</i> Brown, Brown, Alcala, & Frost 1997	E
40. <i>Platymantis lawtoni</i> Brown & Alcala 1974	E
41. <i>Platymantis montana</i> (Taylor 1922)	E
42. <i>Platymantis panayensis</i> Brown, Brown, & Alcala 1997	E
43. <i>Platymantis polillensis</i> (Taylor 1922)	E
44. <i>Platymantis sierramadrensis</i> Brown, Alcala, Ong, & Diesmos 1999	E
45. <i>Platymantis subterrestris</i> (Taylor 1922)	E
Genus <i>Rana</i>	
46. <i>Rana catesbeiana</i> Shaw 1802	I
47. <i>Rana (Hylarana) erythraea</i> (Schlegel 1837)	I
48. <i>Rana (Sylvirana) nicobariensis</i> (Stoliczka 1870)	N
49. <i>Rana (Sanguirana) sanguinea</i> Boettger 1893	E
<i>Rana everetti</i> Species Group	
50. <i>Rana (Chalcorana) albotuberculata</i> Inger 1954*	E
51. <i>Rana (Chalcorana) everetti</i> Boulenger 1882	E
52. <i>Rana (Chalcorana) igorota</i> Taylor 1920	E
53. <i>Rana (Chalcorana) luzonensis</i> Boulenger 1896	E
54. <i>Rana (Chalcorana) tipanan</i> R.M. Brown, McGuire, & Diesmos 2000	E

***Rana signata* Species Group**

55. *Rana (Pulchrana) grandocula* Taylor 1920 E
56. *Rana (Pulchrana) mangyanum*
Brown & Guttman 2002 E
57. *Rana (Pulchrana) melanomenta* Taylor 1920 E
58. *Rana (Pulchrana) moellendorffi* Boettger 1893 E
59. *Rana (Pulchrana) similis* (Günther 1873) E

Genus *Fejervarya*

60. *Fejervarya cancrivora* (Gravenhorst 1829) N
61. *Fejervarya vittigera* (Wiegmann 1834) E

Genus *Limnonectes*

62. *Limnonectes diuatus* (Brown & Alcalá 1977) E
63. *Limnonectes leytenensis* (Boettger 1893) E
64. *Limnonectes micrixalus* (Taylor 1923) E
65. *Limnonectes palavanensis* (Boulenger 1894) N
66. *Limnonectes parvus* (Taylor 1920) E
67. *Limnonectes woodworthi* (Taylor 1923) E

***Limnonectes magnus* Species Group**

68. *Limnonectes acanthi* (Taylor 1923) E
69. *Limnonectes macrocephalus* (Inger 1954)* E
70. *Limnonectes magnus* (Stejneger 1909) E
71. *Limnonectes visayanus* (Inger 1954)* E

Rhacophoridae

Genus *Nyctixalus*

72. *Nyctixalus pictus* (Peters 1871) E
73. *Nyctixalus spinosus* (Taylor 1920) N

Genus *Philautus*

***Philautus aurifasciatus* Species Group**

74. *Philautus acutirostris* (Peters 1867) E
75. *Philautus leitensis* (Boulenger 1897) E
76. *Philautus longicrus* (Boulenger 1894) E
77. *Philautus schmackeri* (Boettger 1892) E

***Philautus vermiculatus* Species Group**

78. *Philautus poecilus* Brown & Alcalá 1994 E

***Philautus surdus* Species Group**

- | | |
|---|---|
| 79. <i>Philautus alticola</i> (Ahl 1931) | E |
| 80. <i>Philautus surdus</i> (Peters 1863) | E |
| 81. <i>Philautus surrufus</i> Brown & Alcalá 1994 | E |
| 82. <i>Philautus worcesteri</i> (Stejneger 1905) | E |

Genus *Polypedates*

- | | |
|---|---|
| 83. <i>Polypedates leucomystax</i> (Gravenhorst 1829) | N |
| 84. <i>Polypedates macrotis</i> (Boulenger 1891) | N |
| 85. <i>Polypedates hecticus</i> Peters, 1863 | E |

Genus *Rhacophorus*

- | | |
|--|---|
| 86. <i>Rhacophorus appendiculatus</i> (Günther 1859) | N |
| 87. <i>Rhacophorus bimaculatus</i> (Peters 1867) | E |
| 88. <i>Rhacophorus everetti</i> Boulenger 1894 | N |
| 89. <i>Rhacophorus pardalis</i> Günther 1859 | N |

Microhylidae

Genus *Chaperina*

- | | |
|--|---|
| 90. <i>Chaperina fusca</i> Mocquard 1892 | N |
|--|---|

Genus *Kalophrynus*

- | | |
|--|---|
| 91. <i>Kalophrynus pleurostigma</i> Tschudi 1838 | N |
|--|---|

Genus *Kaloula*

- | | |
|--|---|
| 92. <i>Kaloula baleata</i> (Müller, In Oort & Müller 1836) | N |
| 93. <i>Kaloula conjuncta conjuncta</i> (Peters 1863) | E |
| 94. <i>Kaloula conjuncta meridionalis</i> Inger 1954* | E |
| 95. <i>Kaloula conjuncta negrosensis</i> Taylor 1922 | E |
| 96. <i>Kaloula conjuncta stickeli</i> Inger 1954* | E |
| 97. <i>Kaloula kalingensis</i> Taylor 1922 | E |
| 98. <i>Kaloula kokacii</i> Ross & Gonzales 1992 | E |
| 99. <i>Kaloula picta</i> (Duméril & Bibron, 1841) | E |
| 100. <i>Kaloula pulchra</i> Gray 1831 | I |
| 101. <i>Kaloula rigida</i> Taylor 1922 | E |
| 102. <i>Kaloula walteri</i> Diesmos, Brown & Alcalá 2002 | E |

Genus *Oreophryne*

- | | |
|---|---|
| 103. <i>Oreophryne anulata</i> (Stejneger 1908) | E |
| 104. <i>Oreophryne nana</i> Brown & Alcalá 1967 | E |

Genus *Microhyla*

- | | |
|---|----|
| 105. <i>Microhyla petrigena</i> Inger & Frogner, 1979 | N? |
|---|----|