

Luzon Island, Philippines Frogs of Mt. Maquiling and Mt. Banahao

Arvin C. Diesmos, Wildlife Conservation Society of the Philippines

Illustrations by: A.C. Diesmos. Photos by: A.C. Diesmos, J.L. Sedlock, R.V. Redor. Produced by: R.B. Foster, A.C. Diesmos, M.R. Metz, N.R. Ingle, J.L. Sedlock with support from the Andrew Mellon Foundation, the Charles Stearns Fellowship of the California Academy of Sciences, San Francisco, and the Texas Memorial Museum, University of Texas, Austin. © A.C. Diesmos and Environmental & Conservation Programs, The Field Museum, Chicago, IL 60605, USA. [RRC@fmnh.org] Rapid Color Guide #51 version 1.1



● *Bufo marinus*



● *Hoplobatrachus rugulosus*



● *Rana cancrivora* (above)
● *Occidozyga laevis* (below)



● *Rana erythraea* (left)
● *Polypedates leucomystax* (right)



● *Limnonectes macrocephalus*



● *Platymantis corrugatus*



● *Platymantis dorsalis*



● *Platymantis luzonensis*



● *Platymantis mimulus*



● *Platymantis montanus*
Guarding its eggs.



● *Rana luzonensis*
A female.



● *Rana similis*



● *Rana vittigera*



● *Rana woodworthi*



● *Philautus surdus*



● *Rhacophorus pardalis*
Mating. The smaller green frog is the male.



● *Rhacophorus appendiculatus*



● *Kaloula conjuncta*



● *Kaloula kalingensis*



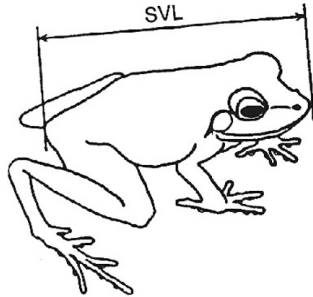
● *Kaloula picta*

This plate shows some of the representative species of frogs known from Mt. Maquiling and Mt. Banahao. Colored circles denote taxonomic families: yellow = Bufonidae, brown = Ranidae, green = Rhacophoridae, red = Microhylidae. These figures are not to scale. Body size measurements and other diagnostic characters to aid in the identification of genera and species are found on the other page. More information about these frogs can be found in the books *Philippine Amphibians, An Illustrated Field Guide* (Alcala & Brown, 1998) and *Guide to Philippine Flora and Fauna: Amphibians and Reptiles* (Alcala, 1986).

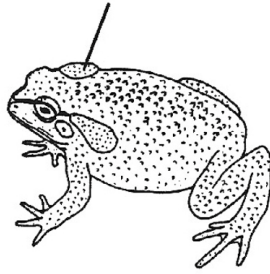
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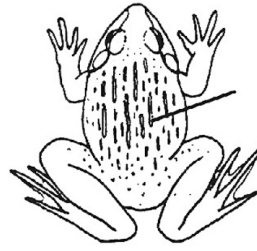
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General features of a frog and the method of measuring the snout-vent length (SVL)



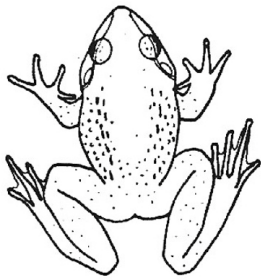
Bufo Large size; parotid glands; rough & spiny skin



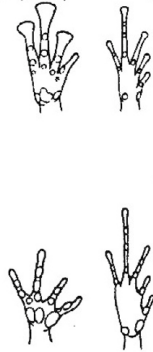
Hoplobatrachus Large size; many folds & ridges on back; toes fully webbed



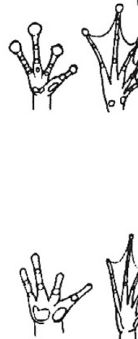
Occidozyga Stocky body; short hind limbs; flat snout; toes fully webbed



Limnonectes Large size; folds, ridges, & tubercles on back; tips of fingers & toes without wide disks; toes fully webbed



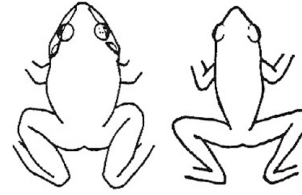
Hand & foot of *banahao*, *luzonensis*, *montanus*



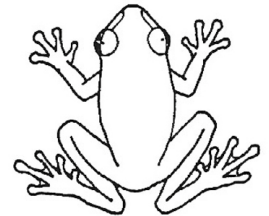
Hand & foot of *luzonensis*



Platymantis Stocky body; ridges & tubercles on back; tips of fingers & toes with or without wide disks; toes with very little webbing



Rana Stocky or slender body; folds or ridges on back; tips of fingers & toes with or without wide disks; toes fully webbed

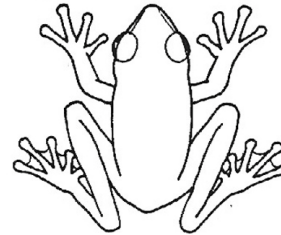


Philautus Stocky body; short snout; smooth back; fingers & toes with wide disks; toes moderately webbed

SPECIES (DISTRIBUTION)	males SVL (adults; in mm.)	females SVL (adults; in mm.)	HABITS	HABITAT
Family BUFONIDAE				
+ <i>Bufo marinus</i> (Ba, Ma)	50—170	45—150	Terrestrial	B,C,D,E,F,G
Family RANIDAE				
+ <i>Hoplobatrachus rugulosus</i> (Ma)	70—100	85—125	Aquatic	D,F,G
* <i>Limnonectes macrocephalus</i> (Ba, Ma)	80—120	55—95	Amphibious	A,B,C
* <i>Occidozyga laevis</i> (Ba, Ma)	26—42	31—62	Aquatic	B,C,D,F,G
* <i>Platymantis banahao</i> (Ba)	22—39		Arboreal	A
* <i>Platymantis corrugatus</i> (Ba, Ma)	27—38	35—51	Terrestrial	A,B
* <i>Platymantis dorsalis</i> (Ba, Ma)	26—35	33—43	Terrestrial	A,B
* <i>Platymantis luzonensis</i> (Ba, Ma)	27—36	35—45	Arboreal	A,B
* <i>Platymantis mimulus</i> (Ma)	19—24	22—28	Terrestrial	A,B
* <i>Platymantis montanus</i> (Ba)	22—28	24—31	Arboreal	A
* <i>Platymantis naomii</i> (Ba)	20—24	21—28	Terrestrial	A
* <i>Platymantis new species 1</i> (Ba)	23—27		Terrestrial	A
* <i>Platymantis new species 2</i> (Ba)	22—32		Terrestrial	A
* <i>Platymantis new species 3</i> (Ba)	21—25		Terrestrial	A,B
* <i>Platymantis new species 4</i> (Ba)	19—22		Terrestrial	A,B
* <i>Rana cancrivora</i> (Ba, Ma)	44—70	46—82	Amphibious	D,E,F
* <i>Rana erythraea</i> (Ba, Ma)	32—48	48—76	Amphibious	B,C,D,F,G
* <i>Rana luzonensis</i> (Ba, Ma)	50—64	72—84	Amphibious/Semi-arboreal	A,B,C
* <i>Rana similis</i> (Ba, Ma)	34—43	46—58	Amphibious	A,B,C
* <i>Rana vittigera</i> (Ba, Ma)	37—60	39—75	Amphibious	D,F,G
* <i>Rana woodworthi</i> (Ba, Ma)	42—67	59—68	Amphibious	A,B,C,D
Family RHACOPHORIDAE				
* <i>Philautus surdus</i> (Ba, Ma)	22—31	28—38	Arboreal	A,B
* <i>Polypedates leucomystax</i> (Ba, Ma)	35—57	48—75	Terrestrial/Arboreal	B,C,D,F,G
* <i>Rhacophorus appendiculatus</i> (Ba, Ma)	29—35	41—52	Arboreal	A,B,C
* <i>Rhacophorus pardalis</i> (Ba, Ma)	40—51	49—66	Arboreal	A,B,C
Family MICROHYLIDAE				
* <i>Kaloula kalingensis</i> (Ba, Ma)	30—38	34—40	Terrestrial/Arboreal	A,B
* <i>Kaloula conjuncta</i> (Ba, Ma)	29—32	28—40	Terrestrial/Semi-arboreal	A,B,C,D
* <i>Kaloula picta</i> (Ba, Ma)	32—51	35—54	Terrestrial/Burrowing	B,D,F,G
* <i>Kaloula new species</i> (Ba)	24—32	31	Terrestrial/Burrowing	A,B,C

+ = introduced or exotic species; * = endemic species Ba = Mt. Banahao; Ma = Mt. Maquiling

Habitat key: A = primary forest; B = disturbed forest; C = streams, rivers; D = lakes, ponds; E = swamps, mangroves; F = agricultural lands; G = other man-made environments



Polypedates Slender body; long, slender limbs; tips of fingers & toes with wide disks; toes fully webbed



Hand of *appendiculatus*



Rhacophorus Slender body; long, slender limbs; short snout; tips of fingers & toes with wide disks; skin flaps on anal area & edge of limbs



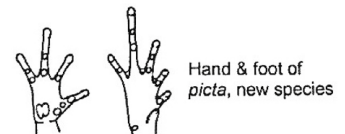
Hand of *pardalis*



Kaloula Round body; small head, short snout; marbled back; short limbs; tips of fingers & toes with or without wide disks



Hand & foot of *conjuncta*, *kalingensis*



Hand & foot of *picta*, new species