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What Common Names Should We Use for Trinidad and Tobago's Frogs?

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ABSTRACT
Many of Trinidad and Tobago's frogs lack appropriate common names. Common names are easier for the general public to use than scientific names and can help species to become better known. Existing common names for the species found in Trinidad are listed and suggestions made for new common names. A plea is made to Trinidad and Tobago's natural historians to discuss and agree on common names where there are none so far.

Key words: Trinidad, Tobago, frogs, common names.

INTRODUCTION

Common names for animals and plants may be very ancient. They were coined long before natural historians got down to the business of classifying and providing scientific names for the world's species, using the binomial Latin system devised by Linnaeus. It has often been found that indigenous peoples have devised names for species which map closely to the species boundaries scientists have later determined (Bailenson *et al.* 2002). However, this tends to apply mainly to those species with which people closely interact such as birds, mammals and flowering plants. In some groups of organisms, common names may refer to a set of species that share some characteristics, rather than to individual species.

Common names can be quite local and language specific so that species which have wide ranges crossing national boundaries may acquire common names that differ from place to place. On the other hand, species which have only recently been noticed by people may lack common names altogether.

Do common names have any value? It can be argued that too many common names vary from place to place and have so little in the way of descriptive content for them to have any use. However, Latin scientific names are frequently cumbersome and difficult for most people to pronounce and write. If conservation biologists are to succeed in the task of persuading the general public to support species conservation, they need communication tools – names for species – that are easy to grasp and understand. An additional problem with scientific names is that they are not necessarily stable: phylogenetic species revisions frequently lead to scientific name changes which need not affect established common names (see Table 1 and Murphy and Downie 2012). Common names can therefore have communication and stability values.

TRINIDAD AND TOBAGO: FROG COMMON NAMES – CURRENT AND PROPOSED

In Trinidad and Tobago, my experience is that very few frog species have established common names, in the sense of being widely used and understood by local people. Murphy (1997) reported common names for only eight of the 36 species he listed. This no doubt relates to the country's complex colonial history, at least in part. If the indigenous Amerindians had common names for any of the frogs, they have not survived in Trinidad and Tobago.

The nearest I have found is from a list of Arawak plant and animal names compiled from Guyana (Forte 1996). Table 1 shows the nine Arawak frog names listed, most of them clearly based on calls. Only one, the shibero, is identified to its scientific name (*Hyla maxima*, now *Hypsiboas boans);* the adaba may be *Trachycephalus typhonius (= venulosus*) and the arabaio sounds like *Pipa pipa.* All three of these species occur in the Guianas as well as Trinidad (Frost 2013). Would these names be appropriate for use in Trinidad and Tobago? According to Besson and Brereton (1992), the Amerindians inhabiting Trinidad when Columbus arrived comprised several different groups; speaking versions of two language families, Arawak and Cariban, but we have no way of knowing if they used names for the local frogs equivalent to those used in Guyana.

From the period of French occupation, the word 'crapaud' (for the large toads, *Rhinella marina*) is in common usage. People also use 'flying frog' (for any of the large tree frogs they come across). The lack of widely used common names for frogs may also relate to a general indifference, even distaste, for these animals in Trinidad and Tobago.

The lack of widely used common names does not mean that no such names exist. Frank and Ramus (1985) published a world species list for amphibians and reptiles which included a list of common names, some of which

Table 1. Arawak frog names and their English equivalents, as listed by Forte (1996).

Arawak	**English and Scientific**
adaba	tree frog with loud, grunting voice
akhorá	forest ground frog
arabaio	flat back aquatic frog
katakata	small grey aquatic frog
kórekóre	kind of frog
shibero	bullfrog = *Hyla maxima*
sorakara	frog
tontonle	small ground frog
wareke	frog

they devised. However, many amphibian and reptile species have been described since that time (Köhler *et al*. 2005) so their list is incomplete. In addition, the common names Frank and Ramus devised have been criticised. Caramaschi *et al.* (2005) characterised Frank and Ramus's common names for leptodactylid frogs as mostly "inappropriate, inane, or both", mainly because the descriptions included in the names are inaccurate or misleading. For example, Frank and Ramus call *Leptodactylus* the 'white-lipped frogs', but most species do not have white lips.

Of the two major world amphibian species on-line databases, AmphibiaWeb (2013) does not include common names, but Amphibian Species of the World (Frost 2013) does. Many of these are drawn from Frank and Ramus, but Frost also lists additional published common names, including some he designates as no longer recognised. Frost lists common names under the heading 'English names'.

Table 2 shows the current list of Trinidad and Tobago's frogs, with the scientific and recognised English names provided by Frost (2013) along with a list of common names suggested in this paper mainly on the basis of appearance or habitat. Two conventions are in use concerning the typing of common names: capitals for all initial letters, or lower case throughout (except where a proper name is included as part of the common name). I prefer the latter style and use it for the suggested list. There follow comments on the 'recognised' and 'suggested' names.

The name 'poison frog' for any member of the genus *Mannophryne* is inappropriate. Even when these frogs were considered dendrobatids, it was known that they are non-toxic. Murphy (1997) listed *M. trinitatis* by the name 'yellow-throated frog' (from a 19th century paper by Mole and Urich). However, only the females have a yellow throat. In recent publications, we have called this species the 'Trinidad stream frog', which is appropriate for its habitat (Downie *et al.* 2001). 'Tobago stream frog' might therefore suit *M. olmonae*.

Of the bufonids, there is no dispute over the identity of *Rhinella marina*, previously called *Bufo marinus*. I am sure that the local name of 'crapaud', listed by Murphy (1997), will continue to be used, but this is a general French word for toad so it would be sensible to use a more specific common name. Both cane toad and marine toad are appropriate, as associating the species with habitats it utilises (the seashore and rivers entering the sea, not the sea itself) on both islands. There is, however, a dispute over the other bufonid long listed as *Bufo*, now *Rhinella beebei*. A recent taxonomic revision has concluded that *R. beebei* is the same species as the Colombian *R. humboldti* (Narvaes and Rodriguez 2009). Even if this is correct, it is unclear that the specific *humboldti* should have precedence over *beebei*; and Murphy *et al.* (in preparation) provide evidence that the Trinidad species is not *humboldti*. Because of William Beebe's long association with Trinidad, it would make sense to name the species locally as 'Beebe's toad'.

'Glass frog' is a recognised common name for the centrolenids and well reflects their transparent appearance. Of the two islands, *Hyalinobatrachium orientale* only occurs on Tobago. As a local name, 'Tobago glass frog' would be suitable.

The families Craugastoridae and Eleutherodactylidae belong to the vast assemblage of Neotropical species known as the terrarananas (Hedges *et al*. 2008): these share the characteristics of terrestrial oviposition and direct development to froglets, with no tadpole stage. Common names are a problem for these species, partly because identification of new species continues apace, and interspecific differences tend to be subtle. Trinidad and Tobago have three craugastorids, only one with a listed common name and two restricted to Tobago. Frank and Ramus (1995) gave the name 'robber frogs' to the group, for no obvious reason. They are mostly found in forest leaf litter, so 'litter frog' might be a suitable general name with specifics related to locality or discoverer. *Pristimantis charlottevillensis* would become the 'Charlotteville litter frog'; *P. turpinorum,* 'Turpin's litter frog'; *P. urichi,* 'Urich's litter frog'. The other terraranan is *Eleutherodactylus johnstonei*, an invasive alien now well established in Trinidad and recently reported from Tobago (Graham White, personal communication), it would be 'Johnstone's litter frog'.

The hylids are characterised (mostly) by their adhesive digital pads and generally live in trees or bushes. 'Tree frog' is the general common name for the family. 'Flying frog' can also be used generally, but is often restricted to larger species found high in trees and therefore seen 'flying' from branch to branch. Trinidad and Tobago have

Table 2. The names of Trinidad and Tobago's frogs.

Family and Species	**Location** **To = Tobago only** **Tr = Trinidad only** **TT = Trinidad and Tobago**	**'Recognised' Common Names and Sources[1]**	**Suggested Names for Trinidad and Tobago**
Aromobatidae			
Mannophryne olmonae	To	Bloody Bay Poison Frog (FR)	Tobago stream frog
M. trinitatis	Tr	Trinidad Poison Frog (FR)	Trinidad stream frog
Bufonidae			
Rhinella humboldti (= beebei)	Tr	Rivero's Toad (FR)	Beebe's toad
R. marina	TT	Giant Toad (FR); Marine Toad, Shoulder-knot Frog, Aqua Toad, Cane Toad (others)	crapaud, cane toad, marine toad
Centrolenidae			
Hyalinobatrachium orientale	To	Eastern Glass Frog (FR)	Tobago glass frog
Craugastoridae			
Pristimantis charlottevillensis	To	None	Charlotteville litter frog
P. turpinorum	To	None	Turpin's litter frog
P. urichi	TT	Lesser Antilles Robber Frog (FR)	Urich's litter frog
Eleutherodactylidae			
Eleutherodactylus johnstonei	Tr	Johnstone's Robber Frog (FR)	Johnstone's litter frog
Hylidae			
Dendropsophus microcephalus	Tr	Yellow Treefrog (FR); Small-headed Treefrog, Yellow Cricket Treefrog (others)	small-headed tree frog
D. minusculus	Tr	Rivero's Tiny Treefrog (FR)	minuscule tree frog
D. minutus	TT	Lesser Treefrog (FR)	minute tree frog
Hypsiboas boans	Tr	Rusty Treefrog (FR); Giant Gladiator Treefrog (others)	giant tree frog
H. crepitans	TT	Emerald-eyed Treefrog (FR); Rattle-voiced Treefrog (others)	rattle-voiced tree frog
H. geographicus	Tr	Map Treefrog (FR)	map tree frog
H. punctatus	Tr	Polka-dot Treefrog (FR)	lesser green tree frog
Pseudis paradoxa	Tr	Swimming Frog (FR); Paradoxical Frog, Jacky, Jackie, Proteus Frog, Paradox Frog (others)	paradox frog
Phytotriades auratus	Tr	Trinidad Heart-tongued Frog (FR); El Tucuche Golden Frog (others)	Trinidad golden tree frog
Phyllomedusa trinitatis	Tr	Trinidad Leaf Frog (FR)	Trinidad leaf frog
Scinax ruber	TT	Red Snouted Treefrog (FR)	lesser brown tree frog

Family and Species	Location To = Tobago only Tr = Trinidad only TT = Trinidad and Tobago	'Recognised' Common Names and Sources[1]	Suggested Names for Trinidad and Tobago
Scarthyla vigilans	Tr	Maracaibo Basin Treefrog	pale grey-green tree frog
Sphaenorhynchus lacteus	Tr	Orinoco Lime Treefrog (FR); Orange Frog (others)	lime tree frog
Trachycephalus typhonius (=venulosus)	TT	Warty Treefrog, Marbled Treefrog, Veined Treefrog (FR), Veined Frog, Milky Treefrog, Vein-eyed Glue Frog, Amazon Milk Frog	milky tree frog, warty tree frog
Hemiphractidae			
Flectonotus fitzgeraldi	TT	Mount Tucutche (error for Tucuche?) Treefrog (FR)	Trinidad and Tobago marsupial tree frog
Leptodactylidae[2]			
Adenomera hylaedactyla	Tr	Napo Tropical Bullfrog (FR)	lesser dark-spotted thin-toed frog
Engystomops pustulosus	TT	Tungara Frog (FR)	tungara frog
Leptodactylus fuscus	TT	Rufous Frog (FR); Fuscous Foam Frog (others)	whistling frog
L. insularum (= bolivianus)	Tr	San Miguel Island Frog (FR)	Barbour's thin-toed frog
L. macrosternum	Tr	Miranda's White-lipped Frog (FR)	greater dark-spotted thin-toed frog
L. nesiotus	Tr	None	Trinidad thin-toed frog
L. validus	TT	None	Garman's thin-toed frog
Microhylidae			
Elachistocleis ovalis	Tr	Common Oval Frog (FR); Oval Frog, Slate Burrowing Frog (others)	common narrow-mouthed or siren frog
E. surinamensis	Tr	Suriname Oval Frog (FR)	Suriname narrow-mouthed or siren frog
Pipidae			
Pipa pipa	Tr	Suriname Toad (FR); Suriname Water-toad, Pipa (others)	pipa toad
Ranidae			
Lithobates palmipes	Tr	Amazon River Frog (FR); Spring Chicken (others)	great olive-green ground frog

1. All 'recognised' common names as listed in Frost (2013); we show names devised or listed by Frank and Ramus (1995) as FR, and the remainder listed by Frost as by 'others'.
2. The 2013 version of Frost's Amphibian Species of the World returns *Engystomops* to the family Leptodactylidae and prefers *Adenomera hylaedactyla* to listing this species under the genus *Leptodactylus.*

13 species of hylid, including the somewhat anomalous *Pseudis paradoxa*. This species is fully aquatic, lacks digital pads and is best known for its giant tadpoles. Despite many efforts, molecular phylogenetic methods have not succeeded in separating the genus *Pseudis* from the hylids, despite its unusual characteristics (Garda and Cannatella 2007). 'Paradox frog', derived from its unusual life history, with tadpoles at full size much larger than adults, continues to be an appropriate name.

For the more characteristic hylids, 'map tree frog' suits *Hypsiboas geographicus* because of its adult dorsal map-like patterning; 'Trinidad leaf frog' fits well for *Phyllomedusa trinitatis*; for *Phytotriades (= Phyllodytes) auratus,* I suggest 'Trinidad golden tree frog' is better than 'El Tucuche golden frog' since the species is found on El Cerro del Aripo as well as El Tucuche, and is a tree frog; 'lime tree frog' might suit *Sphaenorhynchus lacteus*, with its overall colour. The other hylids are more of a problem: the three smallest, *Dendropsophus microcephalus, D. minusculus,* and *D. minutus* are not well distinguished in Trinidad and Tobago by the 'recognised' names in Table 2. *Scinax ruber* in Trinidad and Tobago is not red-snouted. *Hypsiboas punctatus* turns red at night and is green with small pale spots by day: it is not obvious that 'polka-dot' fits this description. Two of the larger tree frogs, *Hypsiboas boans* and *H. crepitans,* might suit names in Table 2: 'giant tree frog' for the former and 'rattle-voiced tree frog' for the latter. *Scarthyla vigilans* seems to have arrived relatively recently in Trinidad (Smith *et al*. 2011): the Table 2 'recognised' name does not fit its new locality. *Trachycephalus typhonius* (= *venulosus)* has several 'recognised' common names reflecting its wide distribution and conspicuousness: when large choruses of these frogs are calling, they are hard to miss. I suggest two names from Trinidad, one describing their warty appearance the other reflecting the milky secretion they release when disturbed.

Trinidad's marsupial frog (eggs incubated in a pouch on the female's back) has recently been reclassified into the family Hemiphractidae. The recognised name in Table 2 is inappropriate since this species is widely distributed in both islands. I suggest 'Trinidad and Tobago marsupial tree frog' as a suitable name.

Caramaschi *et al.* (2005) proposed that the general common name for members of the genus *Leptodactylus* should be 'thin-toed frogs', a name based on the Latin name originated by Fitzinger and descriptive of all members of the genus. Caramaschi *et al.* set up a website as a forum for discussion of *Leptodactylus* names (www.http://learning.richmond.edu/Leptodactylus/CommonNames.cfm). For *L. fuscus* they suggest 'whistling frog' which fits well with the easily recognisable call. For *L. insularum*, they suggest 'Barbour's thin-toed frog' (from the original describer). They currently (January 2013) have no suggestion for *L. macrosternum,* 'Garman's thin-toed frog' for *L. validus*, and 'Trinidad thin-toed frog' for *L. nesiotus,* since it is an endemic known only from the Cedros-Icacos area.

For the non-*Leptodactylus* leptodactylids, Murphy (1997) noted 'coong-la', 'canal frog' and 'pung-la-la' as local names for *Engystomops pustulosus*. This species is internationally known as the 'tungara frog' from the extensive work of Ryan (1985) and it may be sensible to stick with this as the common name, unless further analysis sub-divides this extensively distributed species. No local name for *Adenomera hylaedactyla* is known, but 'bullfrog', as given by Frank and Ramus (1995), is not appropriate, as discussed by Caramaschi *et al.* (2005).

'Microhylid' means narrow-mouthed and that is the general common name used by Murphy (1997). Both the Trinidad species are quite fat little frogs, so 'oval frog' is not entirely inappropriate. Their calls resemble high-pitched sirens, so 'siren frog' could be a good name.

For *Pipa pipa*, since pipa is an easy name to say and remember, 'pipa frog' or 'pipa toad' (they are very warty-skinned, so toad is more descriptive in that sense) is a good name to use.

Trinidad's only ranid, *Lithobates palmipes,* has no currently used common name: 'river frog' (Frank and Ramus 1995) is not appropriate, at least in Trinidad.

CONCLUSION

Amphibians are, of course, not the only group where common names may be lacking. However, a survey of the other vertebrate groups in Trinidad and Tobago suggests that the lack is greatest in the frogs: Phillip and Ramnarine (2001) give common names for 32 out of the 38 freshwater fishes in their main list; Murphy (1997) gives common names for most of the reptiles, though many of them are not locally used; and effectively all the birds have common names (Kenefick *et al*. 2007).

In my view, it would be very valuable in terms of public education and conservation to establish common names for Trinidad and Tobago's frogs. The best way for this to be achieved is by public discussion amongst those who have interests in the flora and fauna of the islands. My aim in writing this discussion paper, therefore, is to set up a forum among natural historians familiar with and/or based in Trinidad and Tobago where suggestions for common names can be put forward and tested. Please send comments on the suggested list in Table 1 and ideas for better names to roger.downie@glasgow.ac.uk.

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