CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

Fifteenth meeting of the Conference of the Parties
Doha (Qatar), 13-25 March 2010

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Inclusion of the genus *Agalychnis* in Appendix II in compliance with Article II, paragraph 2 (a), of the text of the Convention, and Resolution Conf. 9.24 (Rev. CoP14) Annex 2 a, paragraph B, for:

Agalychnis callidryas	(Cope, 1862)
Agalychnis moreletii	(Duméril, 1853)

And in compliance with Article II, paragraph 2 (b), of the text of the Convention, and Resolution Conf. 9.24 (Rev. CoP14), Annex 2 b, paragraph A, for:

Agalychnis annae	(Duellmann, 1963)
Agalychnis saltator	(Taylor, 1955)
Agalychnis spurrelli	(Boulenger, 1913)

B. Proponent

Honduras and Mexico*

C. Supporting statement

1. Taxonomy

1.1 Class: Amphibia

1.2 Order: Anura

1.3 Family: Hylidae, subfamily Phyllomedusinae

1.4 Genus, species or subspecies:

Agalychnis annae (Duellmann, 1963)

1.5 Scientific synonyms: *Phyllomedusa annae* (Duellmann, 1963)

1.6 Common names:

English:	blue-sided tree/leaf frog; golden-eyed leaf frog
French:	rainette arboricole à côtes bleues
Spanish:	rana azul, rana/ranita de los cafetales; rana de café

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* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

Agalychnis callidryas (Cope, 1862)

1.5 Scientific synonyms:	*Hyla callidryas*	(Cope, 1862)
	Agalychnis helenae	(Cope, 1885)
	Phyllomedusa helenae	(Kellogg, 1932)
	Phyllomedusa callidryas	(Cope, 1862)

1.6 Common names:

English:	red-eyed leaf-frog; red-eyed treefrog, Gaudy leaf frog
French:	grenouille aux yeux rouges, Rainette aux yeux rouges
Spanish:	Rana calzonuda, Rana arbórea de ojos rojos, Rana verde de ojos rojos; Rana maki ojimarilla; Rana hoja de ojos rojos
Portuguese:	rã de olhos vermelhos, Perereca de olhos vermelhos

Agalychnis moreletii (Cope, 1865)

1.5 Scientific synonyms:	*Hyla moreletii*	(Duméril, 1853)
	Hyla holochlora	(Salvin, 1860)
	Agalychnis holochlora	(Cope, 1865)
	Phyllomedusa moreletii	(Kellogg, 1932)

1.6 Common names:

English:	black-eyed leaf frog, Morelet's (leaf) (tree) frog;
French:	Rainette arboricole de Morelet
Spanish:	Rana Morelet, Rana Maki, Escuerzo, Rana de Ojos Negros

Agalychnis saltator (Taylor, 1955)

1.5 Scientific synonyms:	*Phyllomedusa saltator*	(Funkhouser, 1957)

1.6 Common names:

English:	misfit leaf frog
French:	
Spanish:	Rana saltadora

Agalychnis spurrelli (Boulenger, 1913)

1.5 Scientific synonyms:	*Phyllomedusa spurrelli*	
	Agalychnis litodryas	(Funkhouser, 1957)

1.6 Common names:

English:	gliding tree frog; gliding leaf frog
French:	grenouille d'arbre de *spurrelli*
Spanish:	Rana deslizadora

1.7 Code numbers: none

2. Overview

Agalychnis spp. is a genus of tree frogs from Central and South America that is under pressure owing to habitat degradation and loss, and to the fungal disease chytridiomycosis. Moreover, some species are subject to international trade.

Over the last 10 years, the United States of America alone has imported an annual average of 21,800 *Agalychnis* frogs. *A. callidryas* is the most imported species (USFWS, 2008) and also the most abundant in captivity (Eisenberg, 2000-2006; 2003). However, *A. moreletii* is also offered for sale in the international pet trade. Including the entire genus in CITES Appendix II will improve control of trade through enhanced cooperation between range States and importing Parties.

The genus consists of six species: *A. annae, A. callidryas, A. litodryas, A. moreletii, A. saltator,* and *A. spurrelli* (Faivovich *et al*., 2005), although *A. litodryas* is treated as a synonym of *A. spurrelli* in recent publications (Ortega-Andrade, 2008). This proposal only considers the five species recognized by the CITES standard

reference for amphibians (Frost, 2004) adopted in Resolution Conf. 12.11 (Rev. CoP14). This taxonomic status and the similarity of appearance between species are the reasons for proposing the inclusion of the whole genus *Agalychnis* in CITES Appendix II.

The IUCN classifies *Agalychnis moreletii* as Critically Endangered and *A. annae* as Endangered, according to its 2004 assessment (Santos-Barrera *et al*., 2004; Pounds et *al*., 2004) owing to the rapid decline in their populations. Although the remaining species – *A. saltator*, *A. callydryas* and *A. spurrelli* – are in the category of Least Concern (Bolaños *et al*., 2004; Solís *et al.*, 2004; Jungfer *et al*., 2004), the populations of the latter two species are also declining.

A. callidryas and *A. moreletii* qualify for inclusion in CITES Appendix II in accordance with Article II, paragraph 2. (a), of the text of the Convention because of the decline in their populations, which is particularly alarming for *A. moreletii,* and their importance in international trade. The other four species, which are only occasionally traded internationally, qualify for inclusion in Appendix II in accordance with Article II, paragraph 2. b), of the text of the Convention because of their similarity of appearance. The five species of *Agalychnis* are generally difficult to distinguish by non-experts. Moreover, within their range, the colour patterns of frogs of the same species may change throughout their life cycle or even from day to night (Pyburn, 1963).

At the latest IUCN Congress (Barcelona, Spain, 5-14 October 2008), a resolution was adopted to stop the crisis involving the loss of amphibian species mentioned in the Amphibian Conservation Action Plan (2007), which called for “long-term conservation programmes, including the regulation of unsustainable trade” (IUCN, 2008, CGR4.MOT021).

3. Species characteristics

3.1 Distribution

Agalychnis annae is endemic to Costa Rica (see **Annex 1**) and occurs from the Caribbean slope to the central plateau, including the Talamanca, Tilarán and Central mountain ranges at an elevation between 780 and 1,650 m (Pounds *et al*., 2004) and the southern slope of Barva volcano, Tibás, Guadalupe, Moravia and Tapantí (Hoffmann, 2005).

Agalychnis callidryas is native to Belize, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua and Panama, and has the widest distribution of the whole genus (see **Annex 1**). In Belize, *A. callidryas* is known from surveys carried out in Chiquibul Forest Reserve, in Cayo District (Briggs, 2008). Its distribution continues along the Caribbean slope to Panama (Solís *et al*., 2004; McCranie, 2006). In Costa Rica, the species has been found in all the Provinces except Heredia (Savage and Heyer, 1968). Its altitudinal range is from sea level up to 1,250 m (Solis *et al*., 2004). It is found on the Atlantic slopes and lowlands from southern Veracruz and northern Oaxaca in Mexico to northern Honduras (Atlántida, Colon, Copan, Cortes, El Paraíso, Gracias a Dios and Olancho). There is also an isolated record from the Cartagena Botanic Garden in the Department of Bolívar, Colombia (Acosta-Galvis, 2000), and in Panama from Barro Colorado Islands (Myers and Rand, 1969) and the canal area (Fouquette, 1966). Intra-specific morphological differences in *A. callidryas* suggest the existence of three different populations, one in northern Mexico (extending south to north-western Honduras), a central population (Nicaragua and the Caribbean lowlands of Costa Rica), and a southern population (the Pacific side of Costa Rica and Panama) (Duellman, 2001). However, no subspecies have been recognized so far.

Agalychnis moreletii is native to Belize, El Salvador, Guatemala, Honduras and Mexico (see **Annex 1**). This species occurs from north-eastern Puebla State and south-central Veracruz State, Mexico, to north-western Honduras (Atlántida, Cortes, and Intibuca) on the Atlantic slope; and from south-central Guerrero State, Mexico, to the central portion and Pacific slope of El Salvador, at elevations between 200 and 1,500 m (Santos-Barrera *et al*., 2004; MARN, 2009a; McCranie, 2006). In Guatemala, it is found in Alta Verapaz (Stuart, 1948). In El Salvador, the species has been recorded in 20 localities in the Departments of Ahuachapán, Cabañas, Cuscatlán, La Libertad, San Salvador, Santa Ana and Sonsonate (MARN, 2009a). In Belize, it occurs in the Maya Mountains, including Chiquibul, Columbia River Forest Reserve and Bladen Nature Reserve (Belize Forest Department, 2009; Briggs, 2008).

Agalychnis saltator is native to Costa Rica, Honduras and Nicaragua (see **Annex 1**). This species occurs in lowlands and, less commonly, on premontane Atlantic slopes from north-eastern Honduras to south-eastern Costa Rica (Savage, 2002) at elevations between 15 and 1,300 m. In Costa Rica, the species occurs on the Atlantic slope in the north of the country (Donnelly and Guyer, 1994; Savage and Heyer, 1968). In Honduras, specimens are found in Gracia de Dios and Olancho (McCranie, 2006). There are currently only two records of

this species in Nicaragua, both from the Bosawas area. Nevertheless, the occurrence of the species may be greater (Bolaños *et al*., 2004).

Agalychnis spurrelli is native to Colombia, Costa Rica, Ecuador and Panama (see **Annex 1**). This species ranges widely in the humid lowlands and lower portions of the premontane zone of south-eastern and south-western Costa Rica, through Panama and the Pacific lowlands of Colombia to north-western Ecuador (Jungfer *et al*., 2004; AMNH, 1998-2008; Gray, 1997). In Costa Rica, populations are reported from the Provinces of Puntarenas and San José (Savage and Heyer, 1968). In Panama, the species occurs on Barro Colorado Island (Myers and Rand, 1969). In Colombia, it occurs in the Departments of Antioquia, Chocó, Córdoba and Valle del Cauca (Acosta-Galvis, 2000; Cochran and Goin, 1970). In Ecuador, it is found in Chocó and Esmeraldas (Morales *et al.,* 2002). Its altitudinal range is from 15 to 750 m (Jungfer *et al*., 2004).

3.2 Habitat

A. annae lives in humid lowlands and montane forests (Elizondo, 2000a). This species tolerates disturbance to its habitat and can live in plantations and gardens (Pounds *et al*., 2004). Specimens are found at elevations from 750 to 1,600 m (Duellman, 2001).

A. callidryas inhabits the canopy of tropical lowland and montane forests. In this species, the presence of temporary or permanent ponds is important for breeding. *A. callidryas* can live in secondary forest but not in heavily degraded areas. It adapts well to areas where there has been selective logging (Solis *et al*., 2004). Preferred temperatures range from 24º to 30°C during the day and from 19º to 22°C at night; optimum humidity ranges from 60 % to 100 % (Eisenberg, 2000-2006).

A. moreletii lives in lowland to premontane moist forests in tropical and subtropical areas. It occurs in both pristine and disturbed habitats, including coffee plantations (Santos-Barrera *et al*, 2004; MARN, 2009a).

A. saltator lives in lowland and montane moist forests and, less commonly, in adjacent rainforests (Bolaños *et al*., 2004). It lives in swamps during the mating (=wet) season and in the canopy during the dry season (Guyer and Donnelly, 2005).

A. spurrelli is a nocturnal arboreal species that lives in undisturbed humid lowland forest (Jungfer *et al*., 2004). It prefers forest pools that are deep, large and sunny (Proy, 1993).

3.3 Biological characteristics

All *Agalychnis* frogs are nocturnal and arboreal. During the day and in the dry season, they shelter on the underside of a broad leaf (Duellman, 2001). Canopy-dwelling species (*A. saltator* and *A. spurrelli*) descend for breeding or to move horizontally. *A. spurrelli* moves through the canopy using a hand-over-hand locomotion (Savage, 2002) thanks to its webbed fingers (Jungfer *et al*., 2004; Savage, 2002).

Breeding occurs during the wet season, from May to June. *A. annae* deposits its eggs in flowing water, *A. callidryas* lays them on leaves floating in pools, *A. moreletii* does so in intermittent or permanent water bodies, and *A. saltator* deposits them around vines, on moss, and on bromeliad roots growing on vines (Bolaños *et al*., 2004; Savage, 2002; Warkentin *et al.*, 2001; Pyburn, 1970). Clutch size ranges from 15 to 200 eggs depending on the species (Campbell, 1999; Elizondo, 2000a, 2000b, 2000d; MARN, 2009a; Savage, 2002; Vargas *et al*., 2000). In undisturbed clutches, eggs hatch after seven or eight days; in disturbed clutches, however, eggs may hatch after four or five days, in response to fungus infestation, flooding or snake attack, for example (Warkentin, 2000; Pyburn, 1963). Tadpoles hatch about 1.5 months after fertilization (Stuart, 1948) and drop into the water, where they metamorphose into frogs in 11 to 12 weeks. Specimens reach sexual maturity at 1.5 years of age (Eisenberg, 2003). Some species, such as *A. saltator*, gather in groups (Roberts, 1994).

3.4 Morphological characteristics

Agalychnis species are slender frogs with vertical pupils that differ from each other in the specific colour patterns on their flanks and thighs, the presence or absence of spots and stripes, and the colour of the iris. However, intra-specific geographic variations and age-dependent differences make it difficult for non-experts to identify individuals in this genus (Pyburn, 1963).

A. annae is moderately large. Maximum head-body length is 73.9 mm in males and 84.2 mm in females (Duellman, 1970). Iris colour is yellow to yellow-orange. The flanks, surface of the arms and posterior part of

thighs are purplish blue (Kubicky, 2004). In contrast with the uniform leaf green upper surfaces, the dorsal portion of the upper arm is pink to lavender and the distal portion is blue. The upper surface of the hands and feet is green, orange and blue. There are yellow stripes along the ventral margin of forearms, tarsi, and feet. The belly is yellow to orange. Colours darken at night to a darker green and bluish purple. Metamorphs lack blue colouring and turn reddish brown at night (Savage, 2002; Duellman, 1970).

A. callidryas is a medium-sized frog with uniform dark blue flanks and thighs and orange to pale red eyes. Females measure up to 77 mm, and males up to 59 mm (Savage, 2002; Duellman, 1970). This frog has leaf green to dark green dorsal surfaces; dark blue, purple or brownish flanks, with yellow vertical or diagonal bars (Duellman, 1970); blue or orange upper arms; thighs that are blue or orange on the anterior, posterior and ventral surfaces; orange hands and feet, except for the outermost digits; and a white belly (Savage, 2002; Leenders, 2001). The back is sometimes marked with faint transverse darker green lines (especially in specimens from Nicaragua or Costa Rica) or small white dots (Villa, 1972). The average number of bars on the flanks increases in populations from north to south, with a mean of 5 bars in Mexico and a mean of 9 bars in Panama (Duellman, 2001). Young frogs can change colour from green by day to purplish brown at night. In addition, young frogs have yellow rather than red eyes, and lighter-coloured flanks without bars (Pyburn, 1963).

A. moreletii reaches a maximum length of 65.7 mm in adult males and 82.9 mm in females. The back is leaf green, light green or dark green, sometimes with white spots. The belly is yellow with orange markings. Flanks, anterior and posterior surfaces of thighs, tarsi and forearms, upper arms, first three fingers and first four toes are orange. A faint broad stripe on the flanks separates the green back from the orange flanks. The throat and belly are yellow. Stripes along the outer margin of forearms and tarsi are white. Eyes are dark red or brown. Hands and feet are three-quarters webbed (Duellman, 1970).

A. saltator is the smallest species in the genus, with adult males ranging from 34 to 54 mm and the larger females ranging from 57 to 66 mm. This frog has red eyes and orange hands and feet (Leenders, 2001). Adults are light or dark leaf green, with some specimens having one to several yellow spots on their dorsal side (Guyer and Donnelly, 2005). The dorsal side changes its colour from green with narrow transverse dark green stripes during the day to reddish brown with brown transverse stripes at night (Duellman, 1970). The ventral side is cream anteriorly with a yellow or orange tint posteriorly. This species closely resembles *A. callidryas* (the red-eyed leaf frog) but can be distinguished by its uniform dark blue or purple flanks without the contrasting pale bars found in *A. callidryas* (Duellman, 1970; Savage and Heyer, 1968).

The size of specimens of ***A. spurrelli*** varies geographically. In Costa Rica, adult males measure 48.2 to 56.4 mm in length and adult females measure 60.2 to 71.8 mm. In Panama, individuals are larger, with males measuring 67.6 to 75.6 mm and females 81.6 to 92.8 mm (Duellman, 2001). The dorsal surface is light, yellowy green, during the day and turns darker at night. The dorsal surface often has black-bordered white spots. Black outlines seem to be present in all individuals in Panama and Colombia but are absent in some specimens from Costa Rica. Upper surfaces of the forearms, flanks, belly, anterior and posterior thigh surfaces, webbings and most digits are orange (Ortega-Andrade, 2008; Duellman, 1970, 2001). Fingers and toes are extensively webbed (Cochran and Goin, 1970). Individuals from Barro Colorado Island, Panama, have a yellow chin and throat, while those from Tacarcuna, Panama, have a white throat and chest, and those from the Peninsula de Osa, Costa Rica, have a cream throat and chest and a pale orange belly. In some individuals, a dark green stripe separates the green back from the orange flanks (Duellman, 2001). The iris is dark red, and the palpebral reticulations are greenish gold.

3.5 Role of the species in its ecosystem

Agalychnis frogs are carnivorous and feed mainly on insects (including moths, crickets, beetles and flies), although their diet also includes smaller frogs occasionally (Campbell, 1999; Elizondo, 2000a, 2000b, 2000d; Savage, 2002). The eggs of these frogs are preyed on by fly larvae, ants, beetles, aquatic hemipteras, snakes and birds, including purple gallinules (Warkentin *et al.,* 2006a, 2006b; Elizondo, 2000a, 2000b, 2000c, 2000d; Scott and Starrett, 1974). Tadpoles are preyed on by shrimp, fish, dytiscid beetles and green kingfishers (Leenders, 2001; Scott and Starrett, 1974). Ctenid spiders have been observed hunting tadpoles (Donnelly and Tipo, 1994). Predators of adult specimens include birds (e.g. *Leucopternis semiplumbea*), arboreal snakes, primates, and bats (Leenders, 2001; Elizondo, 2000a, 2000b, 2000c, 2000d; Donnelly and Guyer, 1994).

4. Status and trends

4.1 Habitat trends

Some areas of rainforest in the range of *Agalychnis* have been negatively affected by global warming, deforestation, pollution, and changes in drainage of ponds (Bolaños *et al*., 2004; Jungfer *et al*., 2004; Santos-Barrera *et al*., 2004; Solis *et al*., 2004). Deforestation rates are high in several range States (FAO, 2007).

The habitat of *A. moreletii* in Belize (Belize Forest Department, 2009) is in good condition and includes 1.2 million hectares of protected areas in the Maya Mountains. However, availability of breeding sites (temporary water bodies) may be a limiting factor for the species in significant portions of its range in the area.

In Colombia, the habitat of *A. callidryas* is highly fragmented so the species is likely to persist in conserved fragments; the habitat of *A. spurrelli* includes large areas that are appropriate for the long-term survival of the populations (Lynch, 2009).

In Costa Rica, the habitats of *A. annae*, *A. spurrelli, A. saltator*, and *A. callidryas* are stable to a greater or lesser extent; *A. annae* can be found even in disturbed areas (MINAET, 2009a).

In El Salvador, the habitat of *A. moreletii* covers approximately 900 km^2 and a total of 9,319.34 ha of protected areas. However, most of its range is outside protected areas (MARN, 2009a).

Although no direct information is available about habitat trends for *A. moreletii* and *A. callidryas* in Guatemala, *A. moreletii* is distributed in most of the country, except the southern coast and part of the northern region, inside and outside protected areas; *A. callidryas* is distributed only in the north and northeast region of the country, where most protected areas are located (CONAP, 2009a).

4.2 Population size

A. annae is classified as Endangered in the IUCN Red List because it has disappeared from most of its range and survives mainly around San José, Costa Rica (Pounds *et al*., 2004).

A. callidryas is classified as of Least Concern in the IUCN Red List. The species is considered to have a wide distribution, and the population is presumed large (Solís *et al*., 2004). It is abundant on Barro Colorado Island, Panama (Myers and Rand, 1969), and in La Selva Biological Station in Costa Rica (Maccachero *et al.,* 2005). Surveys carried out in Belize found the species in many study sites (Angel *et al.,* 2004). In Honduras, the status of the species is controversial and ranges from scarce (Portillo, 2007) to locally common, even in deforested areas (McCranie, 2009). In Colombia, the species is only known from records in the north of Bolivar Department and is considered uncommon (Lynch, 2009).

A. moreletii is classified as Critically Endangered in the IUCN Red List (Santos-Barrera *et al*., 2004). In Guatemala and Belize it is also considered Critically Endangered (Jolon-Morales, 2008). In the Endangered Species List of Honduras, *A. moreletii* is classified as Rare (Portillo, 2007). Just recently, two new populations have been described in Copan and Intibuca (McCranie, 2009). In Belize, populations appear to be small and scattered in a relatively large area in the Maya Mountains. Most records refer to individual specimens, except in breeding aggregations, where fewer than 50 individuals have generally been observed, although more than 100 individuals were observed in one of them (Belize Forest Department, 2009). In El Salvador, the species is classified as Threatened in the Official List of Threatened or Endangered Wild Species (Diario Oficial de El Salvador, 2009) and only 20 populations that amount to a total of 212 individuals have been recognized; one of them is infected by the fungus *Batrachochytrium dendrobatidis*. Another population, whose conservation status is currently uncertain, is located near Santa Ana volcano, which erupted in the autumn of 2005 and covered large areas in ashes (Leenders, 2006; Leenders and Watkins-Colwell, 2004; MARN, 2009a).

A. saltator is classified as Least Concern in the IUCN Red List, in view of its presumed wide (but patchy) distribution and its presumed large population. It is present in several well-managed protected areas. It is not especially common, but is regularly seen in mating aggregations at many sites (Bolaños *et al.*, 2004). The species has been determined to be locally abundant in some sites, such as La Selva Biological Station, in Costa Rica (Maccachero *et al*., 2005).

A. spurrelli is easily seen because of its arboreal habits. It is classified as of Least Concern in the IUCN Red List in view of its wide distribution and presumed large population (Jungfer *et al.*, 2004). However, further

surveys are needed to determine its population size and range. In the Pacific lowlands of Colombia, the species is described as abundant, although harvest data suggest that it may be rare (Lynch, 2009).

4.3 Population structure

There is no information available to date on the population structure of these species.

4.4 Population trends

A. annae has suffered a drastic population decline, estimated to be more than 50 % in the last 10 years. This is inferred from the apparent disappearance of much of the population (Pounds *et al.,* 2004). Populations are still declining (Hoffmann, 2005). Populations in Costa Rica have experienced declines throughout the species's range since the mid 1980s, although populations in the Valle Central have recently recovered (MINAET, 2009a).

Populations of ***A. callidryas*** are considered to be experiencing a declining trend (Solis *et al.,* 2004). However, populations in Colombia and Costa Rica appear to be stable (Lynch, 2009; MINAET, 2009a). In Guatemala, there is currently no published information available (CONAP, 2009a). In Belize, the species is considered stable, although some of its populations are declining, mainly because of changes in land use (Belize Forest Department, 2009; Hawthorne *et al.,* 2003).

A. moreletii has suffered a drastic population decline, estimated to be more than 80 % over the last 10 years, and populations continue to decrease (Santos-Barrera *et al.,* 2004). This trend has been confirmed in Belize (Belize Forest Department, 2009; Hawthorne *et al.,* 2003). In El Salvador, the population is currently stable (MARN, 2009b).

A. saltator has stable populations (Bolaños *et al.,* 2004).

According to Jungfer *et al.,* (2004), populations of ***A. spurrelli*** are declining, although the author mentions that the true abundance of the species cannot be determined because of the species's arboreal habits.

4.5 Geographic trends

Since the late 1980s, *A. annae* has disappeared from some areas, including protected areas such as Tapantí National Park and Monteverde Biological Reserve, where it was once common (Pounds *et al.,* 2004; Pounds, 2008). The species has disappeared from most of its range, surviving mainly around San José (Pounds *et al*., 2004).

A. moreletii was formerly locally abundant in some locations in Chiapas State, Mexico, El Salvador and Guatemala. However, recent surveys in the States of Guerrero, Oaxaca, and Chiapas, Mexico, indicate that it has disappeared from the sites where it was recorded in the past (Leenders, 2006; Santos-Barrera *et al*., 2004). In Honduras, it has disappeared from two of its historical sites, Lago de Yojoa and the region of Texiguat (McCranie, 2009).

5. Threats

Persistent habitat degradation and loss due to agriculture, logging, pollution and global warming are a threat to the different species of *Agalychnis*, particularly canopy-dwelling ones (Wilson and McCranie 2004). In Belize, habitat modification and pollution are considered threats to *A. moreletii* and *A. callidryas* because they can limit access to breeding sites (Belize Forest Department, 2009). In El Salvador, most individuals of *A. moreletii* have been found in coffee plantations, where the use of chemical agents may jeopardize the species's survival (MARN, 2009b). In Honduras, the evident decline in populations of reptiles and amphibians as a consequence of deforestation, habitat modification, pollution and pest control, has led to developing a method to estimate the environmental vulnerability (EVI, Environmental Vulnerability Index) of species. The method considers various factors such as geographic range, extent of ecological distribution and specialization of reproductive mode. The EVI yields values ranging from 3 to 17, divided into three categories: low (3-9), medium (10-13) and high vulnerability (14-17). The values obtained for *A. callidryas* (10)*, A. moreletii* (13) and *A. saltator* (13) correspond to medium vulnerability, so these species are considered to be moderately threatened (Wilson and McCranie, 2004).

The IUCN Red List states that *A. annae, A. callidryas* and *A. moreletti* are found in international trade (Pounds *et al.,* 2004; Santos-Barrera *et al.,* 2004; Solis *et al.,* 2004).

Moreover, a mycosis (the chytridiomycosis) has decimated *Agalychnis* populations (Lips *et al.,* 2006). The disease is probably the main cause of the disappearance of *A. moreletii* in Mexico and Belize. In a recent survey carried out in El Salvador, 98 % of tadpoles of this species were found to have malformations caused by the fungus. Highest levels of infestation occur in populations living at elevations between 1,500 and 1,950 m (MARN, 2009a). *A. annae* has survived in polluted areas, possibly because the fungus seems to be more susceptible to pollution than the frog (Pounds *et al*., 2004). Museum specimens of *A. spurrelli* have been found to be infected with chytridiomycosis, but the current impact of this pathogen on the species in the wild is unknown (Jungfer *et al*., 2004). Additionally, the few known remaining populations of *A. annae* are threatened by an introduced alien fish (*Xiphophorus hellerii*) that feeds on larvae (Pounds *et al*., 2004).

6. Utilization and trade

6.1 National utilization

Agalychnis annae, *A. callidryas* and *A. moreletii* are traded as pets (Bolaños *et al.,* 2004; Pounds *et al.,* 2004 and Santos-Barrera *et al.,* 2004).

6.2 Legal trade

Agalychnis annae is offered for sale in the international pet trade (Pounds *et al*., 2004). However, accurate data are scarce and trends in harvest levels in the last few years are uncertain (UNEP-WCMC, 2007). The species is kept as a pet in Germany (Proy, 1993).

Agalychnis callidryas is one of the most popular and sought-after frogs in the international pet trade. However, accurate trade data are scarce and no detailed information is available on trends in harvest volumes and trade in recent years. It is known that the United States has imported at least 20,000 specimens annually in the last 10 years (USFWS, 2008). According to import data from the United States, all the range States except Belize and Colombia export *A. callidryas* to the United States (see **Annex 2**). Nicaragua regularly exports *A. callidryas* to the United States, Canada, France, Germany and the Netherlands. It exported 23,754 specimens in 2006, 24,850 in 2007, and 29,354 in 2008. Nicaragua only exports captive-bred specimens, since wild harvest for commercial purposes is not authorized (MARENA, 2009).

Mexico recorded the following exports of live specimens for commercial purposes: 1,000 specimens in 2000, 1,000 adults and 700 juveniles in 2001, 4,065 individuals in 2003, and 1,690 in 2004, all to the United States (SEMARNAT, 2009). Between 1999 and 2008, 3,480 specimens were exported from Ocosingo, Chiapas (Jolón-Morales, 2008). In 1999-2008, the United States recorded the import of 1,895 wild-caught specimens from Mexico (USFWS, 2008). Conversely, Mexico imported a total of 1,455 specimens of *A. callidryas* from the United States between 1999 and 2008; these figures were recorded in the export statistics of the United States (USFWS, 2008).

In 1999-2008, the United States officially imported at least 207,717 specimens of *A. callidryas*, of which 99.8 % were for commercial purposes and 82 individuals were imported for scientific purposes (USFWS, 2008). The main exporting countries were Nicaragua, Guatemala, Panama and Honduras, followed by Mexico and Costa Rica. In the same period, another 9,839 individuals of the genus *Agalylchnis* were imported (USFWS, 2008). In 1999-2008, the United States exported a total of 42,915 individuals of *A. callidryas* to destinations all over the world (see **Annex 3**).

According to export statistics from the United States (USFWS, 2008), Canada imported 10,198 *A. callidryas* and 95 unidentified specimens of the genus *Agalychnis* from the United States between 1999 and 2008 (see **Annex 3**). However, most of the specimens were re-exports originally coming from range States. Although the species is very abundant in trade in Europe, there are no detailed import data available. The species is available from pet shops and dealers regularly or seasonally (see **Annex 4**). According to export statistics from the United States (USFWS, 2008), Member States of the European Union imported 16,077 *A. callidryas* from the United States between 1999 and 2008. The main importers were Germany, the United Kingdom of Great Britain and Northern Ireland, Italy and the Netherlands (see **Annex 3**). Most of these specimens originally come from range States, whether they are wild-caught or captive-bred. In addition, the United States re-exported *A. callidryas* to the following non-European Union States: Switzerland (1,097), Iceland (78), Georgia (87), Ukraine (75) and the Russian Federation (32) (USFWS, 2008, see **Annex 3**). Between 1999 and 2008, Japan imported 7,839 specimens of *A. callidryas* (see **Annex 3**) from the United States (USFWS 2008). The United States also exported specimens to other destinations in Asia such as Taiwan (province of China) (1,599), Thailand (531), Hong Kong SAR (497), the Republic of Korea (272), Malaysia (85), mainland China (47) and the Philippines

(39). An inspection of 16 pet shops revealed that 11 of them had *A. callidryas* available or could obtain it easily, while two traders reported difficulties to obtain specimens and three did not sell them (Johne, 2008).

A. moreletii used to be common in the pet trade (Santos-Barrera *et al.,* 2004). Between 1999 and 2008, the United States recorded the import of 168 wild-caught specimens of *A. moreletii*, all from Guatemala, as well as 15 captive-bred individuals from Germany (USFWS, 2008). 1,610 *Agalychnis* specimens not identified to the species level were imported from the range States of Guatemala and Honduras (USFWS, 2008). The United States exported 52 specimens of *A. moreletii* to Canada, Japan, Sweden and the Republic of Korea during that period (see **Annex 3**).

No trade data are available for ***A. saltator***.

A. spurrelli is occasionally sold in international trade but information is scarce. Over the last 10 years, the United States has officially imported 21 wild-caught specimens from Costa Rica for scientific purposes (USFWS, 2008). In addition, 953 specimens of *Agalychnis* spp. imported by the United States came from range States of *A. spurrelli* (USFWS, 2008).

It is important to mention that specimens of *Agalychnis* species are offered for sale internationally on the Internet (see **Annex 4**).

6.3 Parts and derivatives in trade

Only trade in live animals is known to occur.

6.4 Illegal trade

Although *Agalychnis* frogs are not protected at the international level, their export is prohibited or regulated by permit systems in several range States. According to Guatemalan authorities (CONAP, 2009a), no legal exports of *A. moreletii* and *A. callidryas* have taken place in recent years. The more than 11,000 specimens of *A. callidryas* and 168 specimens of *A. moreletii* from Guatemala imported by the United States between 1999 and 2008 (see **Annex 2**) were probably exported illegally. Costa Rica has exported *A. callidryas* only for scientific purposes (MINAET, 2009c). However, between 1999 and 2008, the United States officially imported 103 specimens of *Agalychnis* spp. from Costa Rica (USFWS, 2008). In Colombia, there is suspicion of illegal trade for abundant species such as *A. spurrelli* (Lynch 2009). According to McCranie (2009), Honduras stopped granting export permits in 2006, but Honduras and Panama are mentioned as countries of origin of *Agalychnis* specimens imported by the United States (see **Annex 2**). These same countries occasionally import specimens from the United States as pets (see **Annex 3**; USFWS, 2008). The United States have recorded the import of wild-caught and ranched specimens from Nicaragua (USFWS, 2008). Including the genus *Agalychnis* in CITES Appendix II will improve communication on trade between exporting and importing Parties and contribute to curbing illegal trade.

6.5 Actual or potential trade impacts

Agalychnis callidryas is found in international trade. According to the records of the United States, just under 50,000 wild specimens were traded in 2008 (Santos-Barrera *et al.,* 2004; USFWS, 2008). *A. moreletii* used to be common in international trade and at least 168 specimens were traded in 2008 (Solis *et al.,* 2004; USFWS, 2008). Moreover, some trade records do not specify the species of *Agalychnis* involved (USFWS, 2008).

7. Legal instruments

7.1 National

In Costa Rica, *A. annae*, *A. saltator*, and *A. spurrelli* are protected by Wild Animal Conservation Act No. 7317, Environmental Act No. 7554, and Decree No. 32633 of the Wildlife Conservation Act Regulation. In Guatemala, *A. callidryas* and *A. moreletii* are protected by Articles 64 and 97 of the Constitution of the Republic of Guatemala and the Protected Areas Act (Decree 4-89), according to which exporters must be registered and apply for permits (CONAP, 2009a, 2009b, 2009c, 2001-2005). In El Salvador, *A. moreletii* is considered to be a threatened species (Diario Oficial de El Salvador, 2009). *A. callidryas* and *A. spurrelli* are protected in Colombia (Lynch, 2009). In Belize, trade in *A. callidryas* and *A. moreletii* for commercial purposes has not been authorized. Although there is no specific protection for amphibians in Belize, they are protected in fact by legislation protecting the habitat and the Wildlife Protection Act (Belize Forest Department, 2009). In Mexico, *A. moreletii* and *A. callidryas* are not included in the Endangered Species List (NOM-059-SEMARNAT-2001).

7.2 International

These species are not protected by any international legal instruments.

8. Species management

8.1 Management measures

Agalychnis annae is one of four Costa Rican amphibians selected for an *ex situ* conservation breeding management programme. The programme is being implemented by the Centro de Conservación Santa Ana (CCSA), in San José, Costa Rica (Fundazoo, no date).

In Honduras, a system of export quotas is in place. In 2003, the quota for *A. callidryas* was 3,040 specimens and the quota for *A. moreletii* was 176 specimens (Portillo, 2007).

In Guatemala, between 2005 and 2006, two companies became registered to breed and export *A. moreletii* and one became registered to breed and export *A. callidryas*. The harvest of a very limited number of specimens was authorized in specific sites with high frog populations, so that these operations could establish their parental breeding stock. Export permits will only be granted for second generation specimens (F2); neither operation has applied for export permits yet (CONAP, 2009a).

In El Salvador, there are no legally established captive-breeding operations. No requests have been made to harvest specimens from the wild either (MARN, 2009b).

8.2 Population monitoring

Various protected areas exist in the range of the genus *Agalychnis*. However, no specific information is available on the monitoring of population status.

8.3 Control measures

8.3.1 International

No international control measures are in place for this genus.

8.3.2 Domestic

In Guatemala, according to CONAP, the CITES Management Authority (2001-2005), certificates of origin and permits are required to export wild animals or plants. Moreover, shipments are inspected at ports. In Mexico, collection permits and export certificates are required for all wild animals. A visual and document inspection is performed on all wildlife shipments for import and export at ports, airports and borders.

8.4 Captive breeding

Captive breeding is rare for several species of the genus (Bartlett and Bartlett, 2000). Recently, *A. moreletii* was selected by German, Swiss and Austrian breeders as one of 11 priority species of amphibians for captive breeding, promoting *ex situ* conservation (Janzen, 2008).

Captive-breeding operations are only known to exist in Nicaragua. Exported specimens come from such operations.

8.5 Habitat conservation

In many range States, *Agalychnis* populations are known to occur in protected areas. In Costa Rica, *A. annae* lives in the protected areas Amistad Caribe, Amistad Pacífico, Huetar Norte, Arenal, Cordillera Volcánica Central, Volcán Poas National Park and Pacífico Central (Hoffmann, 2005; Elizondo, 2000a). *A. callidryas* lives in the protected areas Amistad Caribe, Amistad Pacífico, Huetar Norte, Arenal, Cordillera Volcánica Central, Guanacaste, Osa, Pacífico Central, Tempisque and Tortuguero (Elizondo, 2000b). *A. saltator* has been observed in the protected areas Amistad Caribe, Huetar Norte, Arenal, Cordillera Volcanica Central and Tortuguero (Elizondo, 2000c). *A. spurrelli* has been recorded in Amistad Caribe, Amistad Pacífico, and Osa (Jungfer *et al*., 2004; Elizondo, 2000e).

The geographic range of *A. spurrelli* lies within the Cotacachi-Cayapas Ecological Reserve, but the presence of the species has not been confirmed in any protected areas in Colombia (Jungfer *et al*., 2004).

Agalychnis callidryas occurs in Chiquibul Forest Reserve and *A. moreletii* occurs in the Maya Mountains, both in Belize (Briggs, 2008). In Panama, populations of *A. spurrelli* are known to exist in several protected areas and populations of *A. callidryas* are known to occur in Darién National Park (Jungfer *et al.,* 2004; Elizondo, 2000a). Populations of *Agalychnis* frogs have also been recorded in protected areas in Colombia (Lynch, 2009). In El Salvador, most of the distribution of *A. moreletii* is outside protected areas, mainly in shaded coffee plantations (MARN, 2009b).

Greater habitat conservation measures are needed (Angel *et al*., 2004).

9. Information on similar species

Agalychnis saltator and *A. spurrelli* may be confused with *Duellmanohyla uranochroa*, which is also green dorsally and has red eyes. However, both species can be distinguished from *D. uranochroa* by the absence of a light lateral stripe and a white spot under the eye. Such features are present in *D. uranochroa*. Besides, the webbing between the digits is paler in *A. spurrelli* (Savage and Heyer, 1968). *A. spurrelli* can be distinguished from *Cruziohyla calcarifer* (formerly known as *Agalychnis calcarifer*) by the presence of scattered black-bordered white round spots on its back and a reticulated palpebral membrane, the absence of black finger-shaped projections of the dorsal colour on the pale ventral surface, and the absence of any trace of pigment on the underside of hands and feet (Cochran and Goin, 1970).

10. Consultations

All the range States were consulted on 1 October 2009. Responses were only received from Costa Rica, El Salvador, and Nicaragua, which support the proposal (see **Annex 5**).

11. Additional remarks

Dr Twan Leenders, a biologist specialized in neotropical frogs, pointed out in 2006 that the conservation status of *A. moreletii* seemed to justify its inclusion in CITES (see **Annex 6**).

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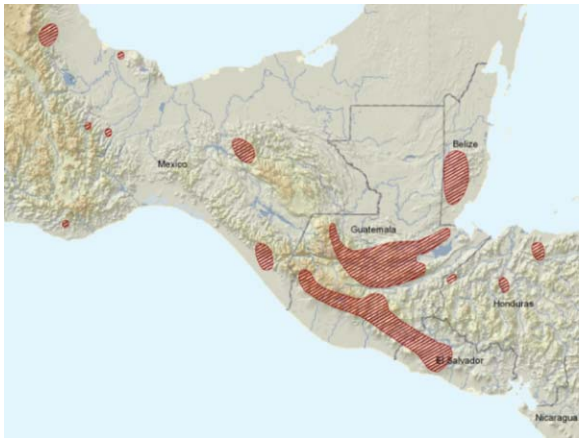
Anexo 1: Área de Distribución de las especies de *Agalychnis*

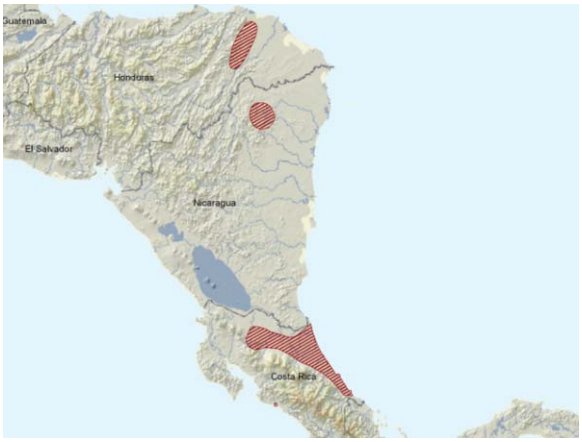
Fuente: IUCN, Conservation International & NatureServe (www.redlist.org)

Agalychnis annae

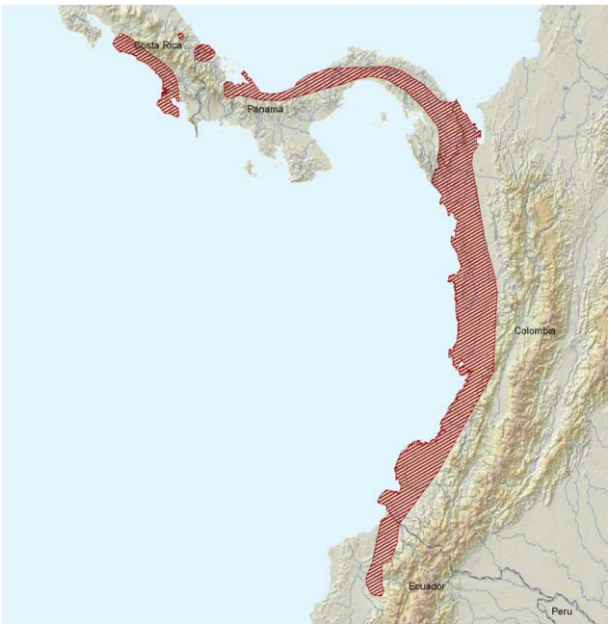
Agalychnis callidryas



Agalychnis moreletii



Agalychnis saltator



Agalychnis spurrelli

Importaciones de *Agalychnis* a EUA de 1999 al 2008 (USFWS, 2009)

*** Otros = código de origen C (cría en cautiverio), F (cría en granja), R (rancheo), U (desconocido)*

Exportador	*A. callidryas*, silvestre	*A. callidryas*, others**	*A. moreletii*, silvestre	*A. moreletii*, others**	*A. spurrelli* silvestre	*A. spurrelli*, others**	*Agalychnis* sp., silvestre	*Agalychnis* sp., otros**
Países del Área de Distribución (PAD)								
Costa Rica*	94	-	-	-	21	-	103	-
Ecuador	-	-	-	-	-	-	151	-
El Salvador	0	584	0	-	-	-	-	-
Guatemala	8,502	3,306	168	-	-	-	1,358	-
Honduras	5,535	568	0	-	-	-	153	-
México	1,845	50	0	-	-	-	-	-
Nicaragua	24,953	149,057	0	-	-	-	1,177	2,151
Panamá	6,869	9,867	0	-	-	-	700	-
Total, PAD	47,798	163,432	168	-	21	-	3,642	2,151
Unión Europea (UE)								
Francia	-	-	-	-	-	-	-	1
Alemania	-	1	-	15	-	-	-	-
Reino Unido	-	10	-	-	-	-	-	-
Otros Países								
Canadá	0	9	-	-	-	-	-	-
Ghana	20	-	-	-	-	-	3,610	-
Guam	45	-	-	-	-	-	-	-
Guyana	0	-	-	-	-	-	-	200
Indonesia	-	-	-	-	-	-	65	-
Nigeria	100	-	-	-	-	-	114	-
Noruega	45	-	-	-	-	-	-	-
Perú	-	-	-	-	-	-	-	60
Togo	60	-	-	-	-	-	-	-
EE. UU.	70	81	-	-	-	-	-	-
"WI"	-	242	-	-	-	-	-	-
Total, otros	340	343	-	-	-	-	3,789	261
TOTAL	**48,138**	**163,775**	**168**	**15**	**21**	**-**	**7,431**	**2,412**

** En Costa Rica la mayoría de los especímenes fueron exportados con fines científicos o para jardines botánicos, solo 12 para el comercio y 32 para la fines de reproducción*

Exportaciones de *Agalychnis* desde EUA de 1999 al 2008 (USFWS, 2009)

*** Otros = código de origen C (cria en cautiverio), F (cría en granja), R (rancheo), U (desconocido)*

Importador	*A. callidryas*, silvestre	*A. callidryas*, otros**	*A. moreletii*, silvestre	*A. moreletii*, otros**	*Agalychnis* sp., silvestre	*Agalychnis* sp., otros**
Estados del Rango de distribución (ER)						
Costa Rica	-	-	-	-	-	-
El Salvador	122	-	-	-	-	-
Guatemala	107	318	-	-	40	-
Honduras	49	-	-	-	-	-
México	349	1,106	-	-	-	70
Nicaragua	10	25	-	-	-	-
Panamá	500	8	-	-	-	-
Total, ER	1,137	1,457	-	-	40	70
Unión Europea						
Austria	160	296	-	-	-	-
Bélgica	53	134	-	-	-	25
Rep. Checa.	224	119	-	-	-	-
Dinamarca	91	40	-	-	-	-
Francia	359	1,200	-	-	-	27
Alemania	2,008	3,415	-	-	-	64
Grecia	12	30	-	-	-	-
Hungría	98	18	-	-	-	-
Irlanda	50	-	-	-	-	-
Itallia	211	1,873	-	-	-	100
Países Bajos	218	1,536	-	-	4	6
Portugal	-	2	-	-	-	-
Eslovaquia	61	131	-	-	-	-
España	231	715	-	-	-	-
Suecia	150	481	8	-	30	-
Reino Unido	436	3,706	-	-	4	65
Otros Países						
Argentina	47	91	-	-	-	-
Canadá	2,185	8,271	22	-	26	69
China	35	12	-	-	-	2
Chile	8	20	-	-	-	-
Georgia	-	87	-	-	-	-
Hong Kong	225	296	-	-	-	-

Islandia	34	44	-	-	-	-
Indonesia	40	430	-	-	-	12
Japón	3,956	4,267	4	3	129	65
Jordania	19	-	-	-	-	-
Macao	-	12	-	-	-	-
Malasia	12	73	-	-	-	-
Nepal	15	51	-	-	-	51
Corea del Norte	34	5	-	-	-	-
Filipinas	13	26	-	-	-	-
Rep. de Corea	102	184	2	12	-	6
Rusia	30	52	-	-	-	-
Suiza	459	725	-	-	-	-
Taiwán	923	808	-	-	-	100
Tailandia	219	381	-	-	-	-
Ucrania	-	75	-	-	-	-
UAE	16	4	-	-	-	-
“xx”	-	12	-	-	-	-
“**”	12	69	-	-	-	-
Total otros	12,746	29,691	36	15	193	592
TOTAL	**13,883**	**31,148**	**36**	**15**	**233**	**662**

Ofertas en Internet de *Agalychnis* en tiendas de mascotas y foros de internet

Especie	País	Tienda / Vendedor	Precio en Euros	Comentarios	Referencia
A. annae	France	La Ferme Tropicale	125.00 €	No siempre disponible	www.lafermetropicale.com Septiembre 2008
A. callidryas	Austria	Zoo Austria	ND	No siempre disponible	www.zooaustria.com Octubre 2008
	Belgica	Fantasia Reptiles	90 €		www.fantasia-reptiles.com Octubre 2008
	Republica Checa	Privado	ND	De venta en ferias de reptiles en toda Europa	www.terraristik.com Septiembre 2008
	Francia	La Ferme Tropicale	59 €	Capturadas en la naturaleza, de Nicaragua	www.lafermetropicale.com Septiembre 2008
		privado	199 € 30 €	"xanthic", No siempre disponible Criadas en cautiverio, progenitores de Nicaragua	http://centre.kijiji.fr Junio 2008
	Alemania	Animal Paradies	40-100 €	de Nicaragua	www.animal-paradies.de Junio 2008
		Aquaterra Shop	49 €		www.aquaterra-shop.de
		Awe-terraristik	75 €		www.awe-terraristik.de Junio 2008
		Reptilica	59 €		www.reptilica.de Junio 2008
		Privado	ND	Criadas en cautiverio, progenitores de Costa Rica	www.schlangenland.de
		Privado	15-20 €		www.terraristik.com
		Privado	10 €		www.terraristikahamm.de Septiembre 2008
	Italia	Privado	70 €	140 por par	www.serpenti.it Noviembre 2008
	Países Bajos	Reptilia	49.95 €		www.reptilia.nl Noviembre 2008
		Reptihouse	57.50 €		www.reptihouse.nl Noviembre 2008
	Polonia	Gadygady	36 €	No siempre disponible	www.gadygady.pl Septiembre 2008
	España	Animalots	65.00 €		www.animalots.com Septiembre 2008
		Pecespeces	59.00 €		www.pecespeces.com Octubre. 2008
		Privado	25 €	tres ranas disponibles	www.terrariomania.mforos.com Septiembre 2008
	Reino Unido	Coast to Coast Exotics	75.00 €	Capturadas de la naturaleza	www.britnett-carver2.co.uk Octubre 2008
		Crystal Palace Reptiles	160 €		www.crystalpalacereptiles.com Junio 2008
		exotic-pets.co.uk	50-113 €	Capturadas de la naturaleza	www.exotic-pets.co.uk
		Fauna Import UK	ND	periódicamente disponibles	www.faunaimportuk.com Octubre 2008
		Godiva Reptiles	37 €	Criada en cautiverio	http://coventryreptiles.co.uk Octubre 2008

		Pollywog's Frog Farm	ND	Vendedor al por mayor	www.pollywog.co.uk Septiembre 2008
		Reptile Centre	49 €		www.reptilecentre.com Octubre 2008
		Privado	31 €	Criada en cautiverio	www.reptiletrader.co.uk Octubre 2008
		Southcoast Exotics	49 €	Capturadas de la naturaleza	www.southcoastexotics.co Sepiembre 2008
		The Living Rainforest	61 €		www.the-livingrainforest.co.uk Junio 2008
		The Reptile Room	31 €	Criada en cautiverio	www.thereptileroom.co.uk Octubre 2008
		Triple 8 Reptiles	50 €		www.888reptiles.co.uk Octubre 2008
		Worcester Reptiles	37 €		www.worcesterreptiles.co.uk Octubre 2008
		Zoo Logic	57-75 €	Una oferta de Nicaragua, una oferta criada en cautiverio	www.zoo-logic.co.uk Octubre 2008
A. moreletii	Francia	La Ferme Tropicale	79-145 €	No siempre disponible	www.lafermetropicale.com Octubre 2008
	Alemania	Animal Paradies	50-150 €	periódicamente disponibles, Capturadas de la naturaleza: Guyana o México	www.animal-paradise.de Noviembre 2008
		Tropenhaus Marxsen	69 €		www.tropenhaus-hamburg.de Junio 2008
		Privado	25 €	Criada en cautiverio	www.tiere-kleinanzeigen.com Junio 2008
		Privado	25 €		www.terraristik.com
	Países Bajos	Reptilia	29.95 €	No siempre disponible, Criada en cautiverio	www.reptilia.nl Noviembre 2008
	España	Animalots	180 €		www.animalots.com Septiembre 2008
	Reino Unido	Exotic Pets	ND	No siempre disponible	www.exotic-pets.co.uk Octubre 2008
A. spurrelli	Alemania	Privado	ND	ocho especimenes	www.terraristik.com

Consulta con los países del área de distribución de *Agalychnis* spp.

MINAET
Ministerio de Ambiente, Energía y Telecomunicaciones

MINSTERIO DEL AMBIENTE, ENERGÍA Y TELECOMUNICACIONES
SISTEMA NACIONAL DE ÁREAS DE CONSERVACIÓN
AUTORIDAD ADMINISTRATIVA CITES
COSTA RICA

05 de octubre de 2009
SINAC-SE-GMRN-507

Mvz. Martin Vargas Prieto
Director General de Vida Silvestre
SEMARNAT
Mexico

Estimado señor:

La Autoridad Administrativa CITES de Costa Rica, junto con las Autoridades Científicas, ha analizado con detenimiento la propuesta sobre el género Agalychnis spp, con el fin de ser incluida en los apéndices de la Convención Internacional sobre el Comercio de Especies Amenazadas de Flora y Fauna Silvestre, CITES, y dando respuesta a su consulta nuestro país estaría anuente apoyar la propuesta si esta es presentada para la próxima COP-14.

Este apoyo se basa en el criterio de que nuestro país no tiene comercio alguno de las diferentes especies que componen el genero, pero que por su similitud morfológica externa, la especie endémica de Costa Rica, Agalychnis annae, se esta viendo afectada por la extracción y el comercio ilegal, tanto así que esta especie esta siendo ofrecida para la venta por medio del Internet, fuera de nuestro país, sin que se hayan dado permisos oficiales para su extracción con fines comerciales o de reproducción, los únicos permisos de exportación que se han emitido son fines científicos, por lo por lo tanto este comercio es totalmente ilegal

Atentamente,

José Joaquín Calvo Domingo
Punto Focal CITES
Costa Rica

C: Jorge Rodriguez, Ministro MINAET
Giselle Méndez Vega, Directora Ejecutiva SINAC

☎ 2256-0917 / FAX 2256-2436
APARTADO POSTAL 11384-1000, SAN JOSÉ, COSTA RICA
www.sinac.go.cr

MINISTERIO DE AGRICULTURA Y GANADERIA
DIRECCION GENERAL SANIDAD VEGETAL Y ANIMAL
DIVISION DE CERTIFICACION FITOZOOSANITARIA PARA ELCOMERCIO

C/ CITES/No. 31/2009

Santa Tecla, 2 de Octubre de 2009

Dr. Martin Vargas Prieto
Director General de Vida Silvestre
Secretaria de Medio Ambiente y Recursos Naturales
Mèxico,D.F.

Presente

Estimado Dr. Vargas:

La Autoridad Administrativa CITES de El Salvador, junto con la Autoridad Científica, ha analizado la propuesta sobre la inclusión de las especies del género *Agalychnis* en los apéndices de la Convención Internacional sobre el Comercio de Especies Amenazadas de Flora y Fauna Silvestre CITES, y dando respuesta a su consulta nuestro país estaría de acuerdo en apoyar la propuesta.

Este apoyo se basa en que *Agalychnis moreletii* està clasificada en peligro crítico de extinción a nivel nacional e internacional. La población en México, Belize y Honduras ha sufrido una disminución de mas del 80%, entre otras cosas, por las afectaciones del hongo *Batrachochytrium dendrobatidis* (Bd).Las poblaciones en El Salvador en las zonas altas también han sido contaminadas con ese hongo. No tenemos conocimiento de la existencia de zoocriaderos de esta especie y/o que exista extracción de la naturaleza con fines comerciales.

Atentamente,

Ing. Medardo Antonio Lizano
Director General DGSVA/MAG
Autoridad Administrativa
CITES El Salvador

REPÚBLICA DE EL SALVADOR
Autoridad Administrativa
CITES
C. A.

Final 1ª.Av. Norte y 13 Calle Ote. Y Av. Manuel Gallardo, Santa Tecla
Conmutador 2228-4443 Ext. 3153 Teléfono 2241-1773 Fax 2228-2735

Gobierno de Reconciliación
y Unidad Nacional
El Pueblo, Presidente!

2009: AÑO 30 DE
LA REVOLUCIÓN
Viva Nicaragua Libre!

Managua, 5 de Octubre de 2009

Señor
Martin Vargas Prieto
Director General de Vida Silvestre
Su Despacho

Estimado Señor Vargas:

Por este medio tengo el agrado de dirigirme a Usted en ocasión de comunicarle que habiendo analizado la propuesta sobre el genero Agalychnis Spp. de inclusión en el apéndice II de la Convención sobre el Comercio Internacional de Especies Amenazadas de Flora y Fauna Silvestres - CITES, nuestro país esta anuente a apoyar esta propuesta y respaldarla en la próxima reunión ce la Conferencia de las Partes.

Es importante mencionar y aclarar que en referencia a la información presentada en la propuesta, en el punto No. 6.2 sobre el comercio legal, Nicaragua solamente exporta especimenes de la especie *A. calidryas* criados en cautiverio, no autorizando su extracción del medio natural para el comercio.

Pendiente a cualquier aclaración al respecto, le Saludo,

Atentamente

Rene Castellón
Autoridad Administrativa CITES

PODER CIUDADANO
Nicaragua para con Uve!

Ministerio del Ambiente y los Recursos Naturales
Km. 12 ½ Carretera Norte, Frente a Corporación de Zonas Francas
Teléfonos:
correo electrónico citesni@marena.gob.ni
www.marena.gob.ni

Señalamientos adicionales (consulta con especialistas)

<leendersa@sacradheart.edu>
03/22/2006 12:04 AM

To: <scientificauthority@fws.gov>
cc:
Subject: Proposal for incorporation of Agalychnis moreletii ("Morelet's or Black-eyed Tree Frog") in CITES.

Proposal for incorporation of *Agalychnis moreletii* ("Morelet's or Black-eyed Tree Frog") in CITES.

Agalychnis moreletii (Duméril, 1853) is a species with a large but scattered distribution range throughout Central America, with populations known from Mexico, Guatemala, Belize, Honduras and El Salvador. Natural populations are decreasing and the species is listed as 'critically endangered (IUCN Red List Criteria: A3e) by IUCN (IUCN et al., 2005).
Lips et al. (2004) note the absence of *Agalychnis moreletii* in several Mexican localities known to contain viable populations of this species in the 1970s. McCranie & Wilson (2002) indicate that *Agalychnis moreletii* only occurs in few locations in Honduras and never was common in that country. The population status of the species on the Yucatan Peninsula is unknown but apparently scattered (Lee 1996). In El Salvador, only few populations are known (Leenders & Watkins-Colwell 2004), one of which is infected with *Batrachochytrium dendrobatidis* (Leenders, unpublished data) and another is located near the summit of Santa Ana volcano which erupted in the Fall of 2005 and covered large areas in volcanic ashes. The status of the latter population still remains uncertain.
During the summer of 2005, 275 *Agalychnis moreletii* were imported into the USA from Guatemala (C. Hoover, pers. comm.) Recently, wild caught *Agalychnis moreletii* showed up for sale on selected websites again and I suspect that additional frogs were imported from the wild. Pet trade can pose a serious threat to surviving healthy populations of *Agalychnis moreletii* in the wild. At this point no information exists to assess whether the harvest of wild frogs form Guatemalan populations poses a threat to the continued survival of the species. However, considering the overall decline on population size throughout its distribution range, *Agalychnis moreletii* appears to warrant CITES protection. The situation is compounded by potential confusion of the critically endangered *Agalychnis moreletii* with the abundant and frequently imported species *Agalychnis callidryas* ("Red-eyed Tree Frog") whose distribution ranges broadly overlap.

IUCN Conservation International, and NatureServe. 2004. Global Amphibian Assessment. URL: http://www.globalamphibians.org. 2 November 2005.
Lee, J.C. 1996. The Amphibians and Reptiles of the Yucatán Peninsula. Cornell University Press. Ithaca, New York, USA.
Leenders T.A.A.M. & G.J. Watkins-Colwell. 2004. Notes on a Collection of Amphibians and Reptiles from El Salvador. Postilla 231: 1-31.
Lips, K.R., J.R. Mendelson III, A. Munoz-Alonso, L. Canseco-Marquez, and D.G. Mulcahy. 2004. Amphibian population declines in montane southern Mexico: resurveys of historical localities. Biological Conservation. 119(3):555-564.
McCranie, J.R. and Wilson, L.D. 2002. The Amphibians of Honduras. Society for the Study of Amphibians and Reptiles. Ithaca, New York, USA. 625 pp.

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