

Association of Marine Laboratories of the Caribbean Founder's Award Named in Honor of and First Presented to Dr. Juan A. Rivero

*Contributed by
Lucy Bunkley-Williams and Ernest H. Williams, Jr.*

Shortly before Bert and I were honored by the Association, the Association of Marine Laboratories of the Caribbean Newsletter stated that we “founded” the Association. We quickly attempted to correct this fabrication since I was only 7-years-old at the time of the first AIMLC Meeting and was in Japan snorkeling. We now have the honor of presenting an award to the real founder of the AMLC, a remarkable scientist and distinguished scholar and academician, Dr. Juan A. Rivero.



Dr. Rivero is a Founding Father of some renown. Besides founding the AIMLC, he founded one of our institutional member labs, the Institute of Marine Biology in the Biology Department of the College of Agricultural and Mechanical Arts (CAAM) in 1954 and helped it develop into our Department of Marine Sciences in the University of Puerto Rico at Mayagüez in 1968. Dr. Rivero also founded the Puerto Rico Zoological Garden in 1954, which was renamed in his honor in 1998; the Zoological Society of Puerto Rico in 1960; a local television program “Ciencia al día” [Science up to date] that he ran

for 14 years; and is working on founding a new botanical garden between his Zoo and the new Biology Building.

The 50th Anniversary of the Association of Marine laboratories of the Caribbean is a highly auspicious occasion to honor Dr. Rivero especially since this year coincides with his 60th year of service at the University of Puerto Rico. During his “two” careers at UPRM, he has been able to watch his AMLC progress and develop over half a century.

Dr. Rivero held and supported the organizational meeting in 1957 and supported the travel of the participants with Office of Naval Research funds. His concept of an Inter-Island Marine Biological Conference became the “Association of Island Marine Laboratories of the Caribbean” and only much later the “Association of Marine Laboratories of the Caribbean.” He also provided a base of operations for 12 years for the AIMLC and one of his Professors, Dr. Juan G. Gonzáles, as the first Secretary-Treasurer (Williams and Bunkley-Williams 2008).





Los delegados de Puerto Rico a la conferencia de biología marina cambian impresiones con el doctor William Sutcliffe, director de la Estación Biológica de Bermuda. De izquierda a derecha: doctor R. E. Coker, doctor William Sutcliffe, doctor Juan A. Rivero y Gerardo González.

Dr. Juan A. Rivero

Preside Asociación Laboratorios Marinos

MAYAGUEZ, (por E. Rosado Báez)—El doctor Juan A. Rivero, del Instituto de Biología Marina de la Universidad de Puerto Rico, fue electo presidente de la Asociación de Laboratorios Marinos, en reunión celebrada en Bermuda. Otros miembros de la directiva son: doctor William Sutcliffe, de Bermuda, primer vicepresidente, el doctor Jacques Zaneveld, de Curazao; Gerardo González, secretario-tesorero, de Puerto Rico. Otros miembros: doctor Luis Howell Rivero, R. E. Coker, David Ste-

ven. La Asociación de Laboratorios Marinos es una organización internacional de carácter científico, cuyos propósitos primordiales son el estudio de los recursos marinos, la vida en el mar en su aspecto científico y el auspicio de proyectos de in-

vestigación sobre ciencias marinas.

De 18 trabajos ofrecidos a los delegados sobre diversas investigaciones realizadas por los miembros de la entidad, 6, correspondieron a Puerto Rico. Los trabajos mencionados fueron suscritos por Ramón Margalef, Gerardo González, Juan A. Rivero, y Paul y Lillian Burkholder. Solamente pueden pertenecer a esta Asociación Laboratorios Marinos debidamente reconocidos con sede en islas donde se lleven a cabo trabajos de investigación los siguientes científicos: doctor Luis Rivas y Felipe Martin, de Venezuela; David Menzel, Raymondo MacAllister y el coronel Ellito Stevens, de Bermuda; John Vernberg, de Duke; Gerardo González de Puerto Rico; y Alexander Ivanoff, del Museo

de Historia Natural de París.

Los 20 delegados fueron huéspedes la Estación de Investigaciones Biológicas de Bermuda, y su director, el doctor William Sutcliffe y de los señores J. W. Sykes, y William E. S. Zull



Juan A. Rivero was born 5 March 1923 in Santurce, Puerto Rico. He received a BS in the College of Agricultural and Mechanical Arts, Mayagüez in 1945; and MS and PhD degrees at Harvard University in 1951 and 1953, respectively. He was briefly inducted in the U.S. Army in 1945, but discharged in May 1946, after WWII ended. He was hired in the Institute of Tropical Agriculture as an Assistant Plant Physiologist in June 1946, and in the Biology Department in January 1947. Dr. Rivero was an Instructor from 1947 through 1953, an Assistant Professor (1953-1954), Associate Professor (1954-1958), received tenure in 1954, and Professor (1958-present). His research specialty is herpetology especially the zoogeography of neotropical frogs and taxonomy (naming 1 genus, 119 species, and 4 subspecies of amphibians and reptiles [Appendix 1]). He taught Animal Behavior, Biology

of Sex, Evolution, Herpetology, Comparative Vertebrate Anatomy, Physiology, Systematics, and Graduate Seminar. Dr. Rivero enjoys teaching and is quite good at it. His courses are academically rigorous, but extremely popular with the students. Historically, few other professors have been such a teaching asset for such a long period of time. He was Director of the Department of Biology from 1959 through 1960, Director of the Institute of Marine Biology from 1954 through 1962, Dean of the College of Arts and Sciences in 1962 through 1966, President of the Association of Island Marine Laboratories of the Caribbean in 1957; Director of the Zoological Garden from 1954 through 1963. He received major grant funding from the Office of Naval Research to support the Institute of Marine Biology from 1954 through 1962, create and support the Association of Island Marine laboratories of the Caribbean, bring in famous visiting professors and support summer programs, and support oceanographic cruises; and National Academy of Sciences funding to support herpetological studies in South America. For the first 21 years with only three able to claim that honor (Rafael Joglar 1977-81, Fernando Bird 1980-83, and Rinaldo García 1981-86). He has published 108 scientific and popular papers and 17 books. He has been honored by receiving a Guggenheim Fellowship in 1970, First Prize from the Institute of Puerto Rican Literature in 1979, Distinguished Participant of the Congress of Latin American Zoology in 1980, Distinguished Investigator UPRM in 1985, Distinguished Professor UPRM in 1987, and the only Professor in UPRM to ever have a reserved parking place and his own private secretary. Fourteen of new animal species, including Rivero's coqui, have been named in his honor (Table 1):



Table 1. Species of Animals Named in Honor of Juan Rivero

Scientific name Author, Common Name
Synonyms(s)

Atractus riveroi Roze, 1961, Rivero's Ground Snake
Ballophilus riveroi Chamberlin, 1950, Rivero's Centipede
Cochranella riveroi (Ayarzagüena, 1992), Rivero's Cochran Frog
Centrolenella riveroi Ayarzagüena, 1992
Dendropsophus riveroi (Cochran and Goin, 1970), Rivero's Tree Frog
Hyla riveroi Cochran and Goin, 1970
Eleutherodactylus juanariveroi Rios-López and Thomas, 2007, Juan A. Rivero's Coqui
Geomelania riveroi Clench, 1962, Rivero's Elongate Snail
Glomeridesmus riveroi Chamberlin, 1950, Rivero's Millipede
Hemitrochus riveroi Turner, 1958, Rivero's Flat Snail
Leptodactylus riveroi Heyer and Pyburn, 1983, Rivero's White-lipped Frog
Mannophryne riveroi (Donoso Barros, 1965), Rivero's Poison Dart Frog
Colostethus riveroi of Edwards, 1971
Prostherapis riveroi Donoso-Barros, 1965
Prostherapis riveroi of Donoso-Barros, 1965
Marshallela riveroi Ramos, 1989, Rivero's Treehopper
Pristimantis riveroi (Lynch and La Marca, 1993), Rivero's Coqui
Eleutherodactylus riveroi Lynch and La Marca, 1993
Processa riveroi Manning and Chace, 1971, Rivero's Shrimp
Stefania riveroi Señaris, Ayarzagüena and Gorzula, 1997, Rivero's Marsupial Frog.

Dr. Rivero's Comments on Receiving the Award



It is with great humility and pride that I accept the distinction that has been awarded me today, 50 years after the foundation of this organization. There is a time in life when you have to stop saying "I am" and should start saying "I was." The type of recognition bestowed upon me today has the laudatory effect of

revitalizing my energy and of making me believe that I still am. Thanks for strengthening that illusion.

Perhaps most of you are knowledgeable of the fact that around the forties the U.S. Navy had some difficulty in explaining the distortion of sonar waves during the afternoon hours. It was thought, with some justification, that marine organisms were somehow interfering with the transmission of the sound waves, and this led to the recruitment of three marine scientists, Ewing, Worzel, and Lamar, in the hope of identifying and solving the problem. Ewing and his colleagues promptly discovered that temperature has the effect of flexing the sound waves, creating a shadow area where the waves cannot be detected. This discovery had important implications. A submarine hidden in the shadow area could not be detected by the enemy.

At the end of World War II, the Navy was well convinced of the importance of oceanographic studies, and created the Office of Naval Research (ONR), with generous funds to sponsor research and teaching in the marine sciences. The late 1950s and 1960s were thus among the most exciting in the study of these disciplines. There were plenty of funds, provided by the Navy, and practically no restrictions on their use. Woods Hole, Scripps, and Lamont were the main beneficiaries, but the Institute of Marine Biology of the University of Puerto Rico, now Department of Marine Sciences, received adequate financial support. The Director of ONR was Sidney Galler, a man so revered and flattered at the time that there was no meeting, social or academic, where you could have access to him, so close was the circle of people trying to get a share of his financial attention. But Sidney was married at the time to a Puerto Rican lady and this event may have helped to put us in contact. Not only did ONR, together with the University of Puerto Rico, sponsor the first meeting of the Association, covering the expenses of all participants, but also supported, for several years, an international summer course in the marine sciences, and indirectly, my participation in the Vema (Lamont) Oceanographic Expedition of 1958.

The distinction conferred to me as founder of the Association should not correspond solely to me. Sid Galler, who I have not seen since then, deserves the distinction as much as I do. The idea was concocted by both of us, although for obvious reasons, I had to put it into effect.



The first meeting of the Association of Island Marine Laboratories, as it was then called, was held at La Parguera, Puerto Rico between March 31 and April 5, 1957. The Bellairs Research Institute of McGill University in Barbados was represented by its Director, John Lewis; the Bermuda Station by Bill Sutcliffe, Director, and Louis Mowbray, Vice Chairman of the Board and Director of the Aquarium; the Bimini or Lerner Station by A. E. Parr, Director of the American museum of Natural History, Norman Newell, Curator of Invertebrate Paleontology, and Francesca LaMonte, Associate Curator of Fishes; and David Steven and Tom Goreau represented the Marine Laboratory of the University College of the West Indies in Jamaica. I had the great pleasure yesterday of greeting Tom's son who I had not seen since he was a child about 48 years ago. The Curaçao Marine Station was represented by its Director, Jacques Zaneveld; there were three Cuban representatives, Jorge Rodríguez Walling from the Universidad José Martí, Manuel Díaz Piferrer from Universidad de Oriente, and José Suarez Caabro from Universidad de Villanueva; and the University of Puerto Rico had three representatives, myself as the Director of the Institute of Marine Biology, Germaine Warmke our Curator of Mollusks, and R. E. Coker our Biological r.

Although the By-Laws of the Association were not structured until the second meeting in Bermuda, the objectives were outlined from the beginning: [1] to establish personal as well as official relations among chief staff members of island laboratories that have, to a great extent, common problems of administration, support, and procedures; [2] to explore potentialities and opportunities for cooperation among island laboratories and between island and continental laboratories; [3] to consider together the most practical needs and techniques for research in tropical marine biology adapted to small laboratories in the warmer areas; and [4] to discuss plans for stimulation of interest in studies of the sea among high school and college students and for a program of public education respecting the importance of biological and oceanographic studies.

There were eight panel sessions in which each of these topics was discussed, an illustrated presentation of the laboratories by their respective Directors, a final administrative session in which, among other things, the Association thanked and expressed its strong conviction "that in making possible this highly stimulating and educational gathering the Office of Naval Research had rendered a real service to the advancement of marine biology and other studies of the sea" and finally, a presentation of papers. It should be emphasized that in no case did ONR try to pressure or influence any laboratory or its members into conducting research that could be of military use.

I wouldn't say much about the second meeting of the Association in Bermuda, except to add the names of the new participants: Ivan Goodbody from Jamaica; Juan G. González from Puerto Rico; Carlos González Nuñez from the Dominican Republic; Luis Rivas and Felipe Martin from the projected La Salle Station at Isla Margarita; and David Menzel and W. E. Steven from Bermuda.

Juan Gerardo González and I are among the few survivors of the first encounters.¹ We are among those who believe that the path is more interesting than the arrival, the journey is more important than the destination, and have survived the misdemeanors of a world aflame. The request of the poet, who asked for the world to be stopped because he wanted to get off, is making sense to a good number of people. The conflict between

ideologies seems to be a requirement for the progress of civilization. It is very painful indeed, to accept that progress can only be achieved by way of disputes, hate, suffering, and death, but if we take a look into history we will notice that man has only enjoyed very short periods of peace and tranquility. Even the Pax Romana, which gave a name to a period of world history, was only peaceful for the inner inhabitants; the rest of the Roman Empire was ardent with conflict and bellicosity. But today, as always, the unrest of the world coincides with the silent effort of people like you, the workers of science and civilization, who continue unabated with their efforts and endeavors. The Association of Marine Laboratories of the Caribbean, its goals intact and the camaraderie and affection of its members untouched by the outside thunder, serves well to buffer some of the pernicious effects of this world in crisis. For that, its 50 years of existence should be a matter of joy and satisfaction for all. If I had a cup of wine, I would certainly toast for its continuous and prosperous existence.



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¹Many of the participants in the first meeting, or the “Founding Fathers” as Ivan Goodbody called them, have passed away. Bert was able to contact Germaine Warmke as part of our preparations for this meeting and for the Second IMB/DMS Reunion.

Dr. Rivero’s Publications

Books

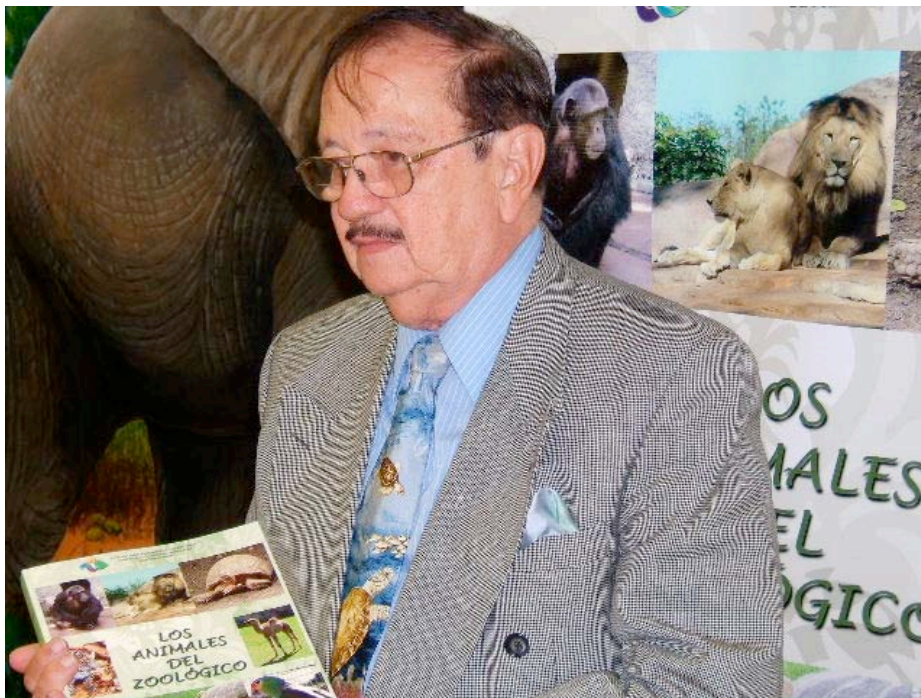
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Poison Frog, *Minyobates steyermarki*, was used with the permission of the photographer, H. Walter Seil.

APPENDIX 1: TAXA NAMED BY DR. JUAN A. RIVERO

One new genus, 119 new species, and 4* new subspecies (*He actually named more subspecies, but some of these have become species and are listed as such) are listed in alphabetical order. Most of the taxa are frogs and toads, but one anole is included.

Allobates humulis (Rivero, 1980), Bacono Rocket Frog [syn. *Colostethus humulis* Rivero, 1980]

Anolis occultus Williams and Rivero, 1965, Puerto Rican Twig Anole



Anomaloglossus shrevei (Rivero, 1961), Shreve's Rocket Frog [syn. *Colostethus shrevei* (Rivero, 1961); *Prostherapis shrevei* Rivero, 1961]

Aromobates dunnii (Rivero, 1961), Dunn's Rocket Frog [syn. *Prostherapis dunnii* Rivero, 1961]

Aromobates haydeae (Rivero, 1978), El Vivero Rocket Frog [syn. *Colostethus haydeae* Rivero, 1978; *Nephelobates haydeae* (Rivero, 1978)]

Aromobates leopardalis (Rivero, 1978), Leopard Rocket Frog [syn. *Colostethus leopardalis* Rivero, 1978; *Nephelobates leopardalis* (Rivero, 1978)]

Aromobates mayorgai (Rivero, 1980), Mayorga Rocket Frog [syn. *Colostethus mayorgai* Rivero, 1980; *Nephelobates mayorgai* (Rivero, 1980)]

Aromobates orostoma (Rivero, 1978), Tachira Rocket Frog [syn. *Colostethus orostoma* Rivero, 1978; *Nephelobates orostoma* (Rivero, 1978)]

Aromobates saltuensis (Rivero, 1980), Salty Rocket Frog [syn. *Colostethus saltuensis* Rivero, 1980]

Atelopus andinus Rivero, 1986 [syn. *A. pulcher andinus* Rivero, 1986; *A. spumarius andinus* Rivero, 1986]

Atelopus carbonerensis Rivero, 1974, La Carbonera Stubfoot Toad [syn. *Atelopus oxyrhynchus carbonerensis* Rivero, 1974]

Atelopus ebenoides Rivero, 1963, Huila Stubfoot Toad [possibly extinct, due to chytridiomycosis]

Atelopus eusebianus Rivero and Granados Díaz, 1993, Malvasa Stubfoot Toad

Atelopus galactogaster Rivero and Serna, 1993, Antado Stubfoot Toad

Atelopus longibrachius Rivero, 1963, El Tambo Stubfoot Toad

Atelopus mucubajiensis Rivero, 1974, Mucubaji Stubfoot Toad

Atelopus nicefori Rivero, 1963, Nicefor's Stubfoot Toad

Atelopus pedimarmoratus Rivero, 1963, San Isidro Stubfoot Toad

Atelopus pinangoi Rivero, 1982, Pinango Stubfoot Toad

Atelopus sanjosei Rivero and Serna, 1989, Anori Stubfoot Toad

Atelopus walkeri Rivero, 1963, Walker's Stubfoot Toad

Centrolene altitudinale (Rivero, 1968), Mountain Giant Glass Frog [syn. *Centrolenella altitudinalis* Rivero, 1968]

Centrolene andinum (Rivero, 1968), Andes Giant Glass Frog [syn. *Centrolenella andinum* Rivero, 1968; *Centrolenella lentiginosa* Rivero, 1985]

Centrolene venezuelense (Rivero, 1968), Andes Giant Glass Frog [syn. *Centrolenella buckleyi venezuelensis* Rivero, 1968]

Centrolenella lentiginosa Rivero, 1985 [= *Centrolene andinum* (Rivero, 1968)]

Centrolenella loreocarinata Rivero, 1985 [= *Hyalinobatrachium durantei* (Rivero, 1985)]

Centrolenella orocostalis Rivero, 1968 [= *Hyalinobatrachium orientale* (Rivero, 1968)]

Centrolenella ostracodermoides Rivero, 1985 [= *Hyalinobatrachium durantei* (Rivero, 1985)]

Centrolenella pleurolineata Rivero, 1985 [= *Hyalinobatrachium durantei* (Rivero, 1985)]

Cochranella megistra (Rivero, 1985), Urrao Cochran Frog [syn. *Centrolenella megistra* Rivero, 1985]

Colostethus alacris Rivero and Granados Díaz, 1990, Finca Primavera Rocket Frog

Colostethus brachistriatus Rivero and Serna, 1986, Striped-throated Rocket Frog [syn. *C. brachystriatus* Rivero and Serna, 1989]

Colostethus cacerensis Rivero and Serna, 2000 [= *C. iniquinalis* (Cope, 1868)]

Colostethus citreicola Rivero, 1991 [= *Hyloxalus nexipus* (Frost, 1986)]

Colostethus dysprosium Rivero and Serna, 2000

Colostethus furviventris Rivero and Serna, 1991

Colostethus jacobuspetersi Rivero, 1991, Quito Rocket Frog [syn. *C. torrenticola* Rivero, 1991]

Colostethus paradoxus Rivero, 1991 [= *Epipedobates tricolor* (Boulenger, 1899)]

"*Colostethus*" *poecilonotus* Rivero, 1991, Amazonas Rocket Frog [syn. *Colostethus poecilonotus* Rivero, 1991, genus uncertain]

"*Colostethus*" *ramirezi* Rivero and Serna, 2000 [syn. *Colostethus ramirezi* Rivero and Serna, 2000, genus uncertain]

Colostethus sanmartini Rivero, Langone and Prigioni, 1986, San Martin Rocket Frog

Colostethus tergogranularis Rivero, 1991 [= *Hyloxalus pulchellus* (Jiménez de la Espada, 1875)]

Colostethus torrenticola Rivero, 1991 [= *C. jacobuspetersi* Rivero, 1991]

Colostethus yaguara Rivero and Serna, 1991

Cryptobatrachus fuhrmanni orientalis Rivero, 1968 [= *Cryptobatrachus fuhrmanni* (Peracca, 1914)]

Dendropsophus battersbyi (Rivero, 1961), Battersby's Treefrog [syn. *Hyla battersbyi* Rivero, 1961]

Dendropsophus meridensis (Rivero, 1961), Merida Treefrog [syn. *Hyla wilsoniana meridensis* Rivero, 1961]

Dendropsophus minusculus (Rivero, 1971), Rivero's Tiny Treefrog [syn. *Hyla minuscula* Rivero, 1961]

Dischidodactylus duidensis (Rivero, 1968), Mount Duida Frog [syn. *Elosia duidensis* Rivero, 1968]

Eleutherodactylus anae Rivero, 1986 [= *E. curtipes* (Boulenger, 1882)]

Eleutherodactylus boconoensis Rivero and Mayorga, 1973, Bocono Robber Frog

Eleutherodactylus brachypodius Rivero, 1961 [= *E. vilarsi* (Melin, 1941)]

Eleutherodactylus cerasoventris Rivero, 1984 [= *E. vanadise* La Marca, 1984]

Eleutherodactylus chlorosoma Rivero, 1984 [= *E. prolixodiscus* Lynch, 1978]

Eleutherodactylus conspicillatus guayanensis Rivero, 1968 [= *E. vilarsi* (Melin, 1941)]

Eleutherodactylus conspicillatus ileamazonicus Rivero, 1961 [= *E. vilarsi* (Melin, 1941)]

Eleutherodactylus dorsopictus Rivero and Serna, 1988, Sernas Robber Frog

Eleutherodactylus eneidae Rivero, 1959, Villalba Robber Frog

Eleutherodactylus ginesi (Rivero, 1964), Rangel Robber Frog [syn. *Eupsophus ginesi* Rivero, 1964]

Eleutherodactylus hedricki Rivero, 1963, Hendrick's Robber Frog

Eleutherodactylus johannesdei Rivero and Serna, 1988, Urrao Robber Frog

Eleutherodactylus lentiginosus Rivero, 1984, Guacharaquita Robber Frog

Eleutherodactylus melanoproctus Rivero, 1984, Black-marked Robber Frog

Eleutherodactylus mondolfii Rivero, 1984, Mondolfi's Robber Frog

Eleutherodactylus orocostalis Rivero, 1961 [= *E. bicumulus* (Peters, 1863)]

Eleutherodactylus paramerus Rivero, 1984, Paramo Robber Frog

Eleutherodactylus phragmipleuron Rivero and Serna, 1988, Sugar Robber Frog

Eleutherodactylus pleurostriatus Rivero, 1984, Side-striped Robber Frog

Eleutherodactylus pulidoi Rivero, 1984 [= *E. tubernasus* Rivero, 1984]

Eleutherodactylus pulvinatus Rivero, 1968, Danto Robber Frog

Eleutherodactylus racenisi Rivero, 1961 [= *E. bicumulus* (Peters, 1863)]

Eleutherodactylus ramosi Rivero, 1959 [= *E. cochranæ* Grant, 1932]

Eleutherodactylus rozei Rivero, 1961, Roze's Robber Frog

Eleutherodactylus sernai Rivero, 1985 [= *E. cerastes* Lynch, 1975]

Eleutherodactylus terraebolivaris Rivero, 1984

Eleutherodactylus tubernasus Rivero, 1984, Pregonaro Robber Frog [syn. *E. pulidoi* Rivero, 1984]

Eleutherodactylus turumiquirensis Rivero, 1961, Turumiquire Robber Frog

Eleutherodactylus williamsi Rivero, 1961 [= *E. bicumulus* (Peters, 1863)]

Hyalinobatrachium durantii (Rivero, 1985), Durant's Glass Frog [syn. *Centrolenella durantii* Rivero, 1985; *C. pleurolineata* Rivero, 1985]

Hyalinobatrachium estevesi (Rivero, 1968), Esteves's Glass Frog [syn. *Centrolenella estevesi* Rivero, 1968; possibly *Hyloscirtus estevesi* (Rivero, 1968) see listing]

Hyalinobatrachium fragile (Rivero, 1985), Fragile Glass Frog [syn. *Centrolenella fragilis* Rivero, 1985]
Hyalinobatrachium orientale (Rivero, 1968) Eastern Glass Frog [syn. *Centrolenella orientalis* Rivero, 1968; *Centrolenella orocostalis* Rivero, 1968]
Hyalinobatrachium pallidum (Rivero, 1985), Guacharaquita Glass Frog [syn. *Centrolenella pallida* Rivero, 1985]
Hyla ginesi Rivero, 1963 [= *Myersiophyla loveridgei* (Rivero, 1961)]
Hyla lanciformis guerreroi Rivero, 1971 [= *Hypsiboas lanciformis* Cope, 1871]
Hyla paramica Rivero, 1961 [= *Hyloscirtus platydactylus* (Boulenger, 1905)]
Hyloscirtus estevesi (Rivero, 1968), Esteves's Treefrog [syn. *Centrolenella estevesi* Rivero, 1968; possibly *Hyalinobatrachium estevesi* (Rivero, 1968) see listing]
Hyloscirtus jahni (Rivero, 1961), Jahn's Treefrog [syn. *Centrolenella jahni* Rivero, 1961]
Hyloscirtus lascinius (Rivero, 1970), Tabor Treefrog [syn. *Centrolenella lascinius* Rivero, 1970]
Hyloxalus betancuri (Rivero and Serna, 1991) [syn. *Colostethus betancuri* Rivero and Serna, 1991]
Hyloxalus borjai (Rivero and Serna, 2000) [syn. *Colostethus borjai* Rivero and Serna, 2000]
Hyloxalus brevipartus (Rivero and Serna, 1986), Urrao Rocket Frog [syn. *Colostethus brevipartus* Rivero and Serna, 1986]
Hyloxalus cevallosi (Rivero, 1991), Palanda Rocket Frog [syn. *Colostethus cevallosi* Rivero, 1991]
Hyloxalus excisus (Rivero and Serna, 2000) [syn. *Colostethus excisus* Rivero and Serna, 2000]
Hyloxalus faciopunctulatus (Rivero, 1991), Puerto Narino Rocket Frog [syn. *Colostethus faciopunctulatus* Rivero, 1991]
Hyloxalus fallax (Rivero, 1991), Cotopaxi Rocket Frog [syn. *Colostethus fallax* Rivero, 1991]
Hyloxalus idiomelus (Rivero, 1991), Rivero's Rocket Frog [syn. *Colostethus idiomelus* Rivero, 1991]
Hyloxalus maculosus (Rivero, 1991), Spotted Rocket Frog [syn. *Colostethus maculosus* Rivero, 1991]
Hyloxalus marmoreoventris (Rivero, 1991), Rio Negro Rocket Frog [syn. *Colostethus marmoreoventris* Rivero, 1991]
Hyloxalus mittermeieri (Rivero, 1991), Mittermeier's Rocket Frog [syn. *Colostethus mittermeieri* Rivero, 1991]
Hyloxalus parvus (Rivero, 1991), Gualaceo Rocket Frog [syn. *Colostethus parvus* Rivero, 1991]
Hyloxalus peculiaris (Rivero, 1991), Funny Rocket Frog [syn. *Colostethus peculiaris* Rivero, 1991]
Hyloxalus pinguis (Rivero and Granados Díaz, 1990), Malvasa Rocket Frog [syn. *Colostethus pinguis* Rivero and Granados Díaz, 1990]
Hyloxalus pumilus (Rivero, 1991), San Vicente Rocket Frog [syn. *Colostethus pumilus* Rivero, 1991]
Hypsiboas alemani (Rivero, 1964), Cagua Treefrog [syn. *Hyla alemani* Rivero, 1964]
Hypsiboas benitezi (Rivero, 1961), Benitez's Treefrog [syn. *Hyla benitezi* Rivero, 1961]

Hypsiboas lemai (Rivero, 1972), Lema Treefrog [syn. *Hyla lemai* Rivero, 1972]
Hypsiboas pulidoi (Rivero, 1968), [syn. *Centrolenella pulidoi* Rivero, 1968]
Hypsiboas sibleszi (Rivero, 1972), La Escalera Treefrog [syn. *Hyla sibleszi* Rivero, 1972]
Mannophryne obliterata (Rivero, 1984), St. Teresa Poison Frog [syn. *Colostethus obliterata* Rivero, 1984]



Minyobates steyermarki (Rivero, 1971), Demonic Poison Frog [syn. *Dendrobates steyermarki* Rivero, 1971]
Myersiophyla loveridgei (Rivero, 1961), Loveridge's Treefrog [syn. *Hyla ginesi* Rivero, 1963 (replacement name); *H. loveridgei* Rivero, 1961]
Otophryne steyermarki Rivero, 1968, Steyermark's Pancake Frog [syn. *Otophryne robusta steyermarki* Rivero, 1968]
Paludicola exigua Rivero, 1961 [= *Pseudopaludicola pusilla* (Ruthven, 1916)]
Pseudopaludicola ceratophryes Rivero and Serna, 1985, Leticia Swamp Frog
Rheobates pseudopalmatus (Rivero and Serna, 1995) [syn. *Colostethus pseudopalmatus* Rivero and Serna, 2000]
Scinax baumgardneri (Rivero, 1961), Baumgardner's Snouted Treefrog [syn. *Hyla baumgardneri* Rivero, 1961]
Silverstoneia erasmios (Rivero and Serna, 2000) [syn. *Colostethus erasmios* Rivero and Serna, 2000]
Sphaenorhynchus eurhostus Rivero, 1969 [= *Sphaenorhynchus lacteus* (Daudin, 1800)]
Sphaenorhynchus habrus Rivero, 1969 [= *Sphaenorhynchus carneus* (Cope, 1868)]
Genus *Stefania* Rivero, 1968, Stefania Treefrogs
Stefania ginesi Rivero, 1968, Tepuis Treefrog
Stefania goini Rivero, 1968, Vegas Falls Treefrog
Stefania marahuacuensis (Rivero, 1961), Marahuaca Treefrog [syn. *Hyla marahuacuensis* Rivero, 1961]
Stefania scalae Rivero, 1970,
Stefania woodleyi Rivero, 1968, Woodley's Treefrog
Tepuihyla rodriguezi (Rivero, 1968) Rodriguez's Amazon Treefrog [syn. *Hyla rodriguezi* Rivero, 1968]