Etymologies of Caribbean reptiles

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Abstract

With more than 7000 islands, islets, reefs, and cays, the Greater Caribbean is a mega-biodiverse region with 34 currently recognized families, 131 genera, 850 species, and 484 subspecies of reptiles. Herein we resolve the etymologies of their names. The names of most genera (102 of 131) are derived from Greek words whereas those of most species (356 of 850) are from Latin stems. We also found 358 eponyms (named after people) (3 genera, 236 species, and 119 subspecies) and 263 toponyms (named after places) (11 genera, 145 species, and 107 subspecies). Relatively few taxa were named after other sources such as local names or mythological figures. Given that many authors did not explain their names, we also present about 20 names with unclear etymologies, although we offer speculations about their origins and present plausible hypotheses for them.

Keywords: Reptilia, Testudines, Squamata, Crocodylia, eponyms, toponyms.

Introduction

Studies of the terrestrial biota of Caribbean Islands have defined the region in various ways (Hedges *et al*. 2019). In an effort to circumscribe the area, those authors defined "The Caribbean Islands biogeographic region" to include the Antilles, the Bahamas, the Turks & Caicos, and the islands bordering Central and South America separated from mainland areas by at least 20 meters of water depth. To this we added Isla Margarita and its satellites (Coche and Cubagua) (Fig. 1) despite the violation of the 20-meter depth criterion of Hedges *et al*. (2019) because the depth of the water separating Margarita and its closely associated satellite islands approaches 20 meters and four endemic species occur on the islands.

Although employing a more limited definition of the area, Myers *et al*. (2000) included the region in their list of biodiversity hotspots for conservation priorities. Smith *et al*. (2005) removed southern Florida from the Myers *et al*. definition of the Caribbean Islands Hotspot and, like Myers *et al*. (2000), excluded some islands in the southern Caribbean (Isla Margarita, Trinidad, and Tobago). However, regardless of how the region is defined, its terrestrial biota is diverse and exhibits high levels of endemism, largely reflecting the region's geological and biogeographical complexity (Hedges *et al*. 2019).

Taxa in the three orders of the region's rich reptilian fauna (including established species introduced by humans) are assigned to 34 currently recognized families, 132 genera, 850 species, and 484 subspecies (Uetz *et al*. 2025). We compiled etymologies of the reptilian genera, species, and subspecies and classified them into their source types: Greek or Latin stems, local names (local languages or people), eponyms, toponyms, genus, unknown, mythology, or other.

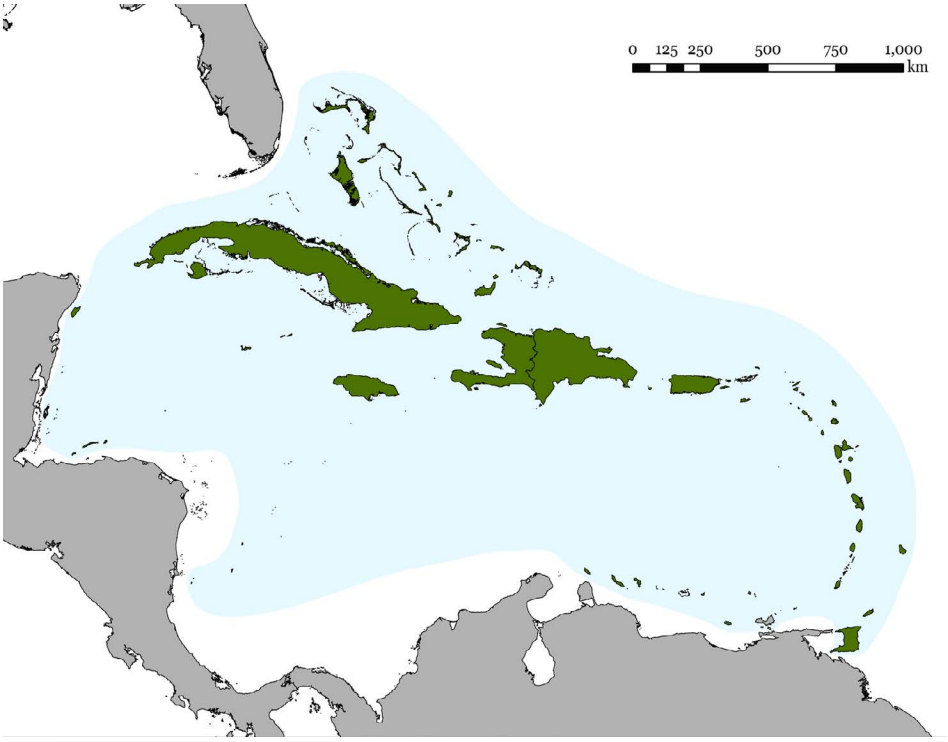

Figure 1. Geographic definition of the Greater Caribbean as used herein. Modified from Hedges *et al*. (2019) by inclusion of Isla Margarita and its satellites.

Materials and Methods

We compiled etymologies from sources including Beolens *et al*. (2011), Brown (1956), Fretey (2023), Gotch (1986, 1995), Werner (1972), printed and online Greek and Latin dictionaries, and original descriptions of the relevant taxa. Unfortunately, especially older species descriptions did not explain the origins of names, although we often were able to infer them from their Greek or Latin stems and descriptions of the species' morphology, habitat, or behavior. Regardless, some names remained obscure, complicated even more by the fact that some authors (e.g., John Edward Gray) are thought to have formed names from random characters without explanation.

We relied heavily on species lists in Hedges (2024) and Hedges *et al*. (2019), although the former did not provide lists of currently recognized subspecies. However, due to the dynamic and sometimes contentious nature of taxonomy, we had to address new descriptions, resurrections of names, and other taxonomic changes, including elevations of subspecies. Consequently, we had to make decisions on some taxa for which nomenclatural stability has not been attained. For example, *Anolis forresti* was originally described as a subspecies of *Anolis wattsi* and since has been variously considered a subspecies (e.g., Henderson and Breuil 2012), a species (Roughgarden 1995; Nicholson *et al*. 2012, 2018), or a junior synonym of *Anolis wattsi* (Hedges 2024; Hedges *et al*. 2019, by omission). Also, Iturriaga *et al*. (2024) resurrected *Typhlops cubae* Bibron, 1843 and continued to recognize species in the *Typhlops lumbricalis* group (*Typhlops leptolepis* Domínguez, Fong and Iturriaga, 2013, *Typhlops oxyrhinus* Domínguez and Díaz 2011, and *Typhlops pachyrhinus* Domínguez and Díaz 2011), despite the fact that Hedges *et al*. (2019) considered those names to be junior synonyms of *Typhlops lumbricalis* because the material used in the descriptions was insufficient and a "comprehensive molecular and morphological review of *Typhlops lumbricalis* does not support the recognition of those taxa as described" (R. Thomas and S. B. Hedges, unpublished). In light of new material in Iturriaga *et al*. (2024) and because the data cited by Hedges *et al*. (2019) remains unpublished, we

tentatively included and provided etymologies for those taxa. For the sake of completeness, we also have included eight extinct species that were included in Hedges *et al*. (2019), but are not listed in the Reptile Database (e.g., *Anolis dominicanus* and *Boa blanchardensis*).

In Supplemental Table S1 (see below), we provide all etymologies with authors, years of publication, as well as our classification into etymological categories. In Table S1, we did not provide complete references for all genera, species, and subspecies, as most of them are listed in Uetz and Stylianou (2018). Additional details, including the complete references for more recent descriptions are available in Uetz *et al*. (2025).

Our classification of etymologies is primarily based on their Greek and Latin stems. In some cases, the meaning of terms provided by the author(s) did not agree with other sources we consulted; in those instances, we retained the meanings provided by the authors as they portrayed the intent if not the actual translation of the relevant terms. In addition, we assigned names to the categories toponym (named after places), eponym (named after people), and aggregated all remaining etymologies as "other" and explained them in Table 1 and in Table S1.

For species with one or more subspecies in the region that also have subspecies elsewhere, we included etymologies of all subspecies, so that our list of subspecies is longer than the list of subspecies that occur specifically in the Caribbean. We thought this to be less confusing than omitting many subspecies. This approach also provided complete etymologies for all species occurring in the Caribbean, including all of their subspecies, no matter where they occur.

Results and Discussion

Examples of taxa with names assigned to various etymological categories are in Fig. 2. Not surprisingly, most names are derived from Latin and Greek. However, we found notable differences between different taxonomic categories (Table 1). For instance, although the names of most (102) genera are derived from Greek stems, 38 are derived from Latin. For species, this is inverted, with most species names (356) derived from Latin, but only 154 from Greek. Similarly, most subspecific names (208) are derived from Latin, but only 93 from Greek.

Table 1. Names of Caribbean reptiles and their etymologies. Note that numbers do not add up to the total number of taxa (bottom row) because some have multiple etymologies (e.g., *Erythrolamprus pseudoreginae* is a composite of the Greek pseudo [ψευδο] [= false, untrue, mistaken] and the Latin regina, reginae [= queen]).

Class	Number of Genera	Number of Species	Number of Subspecies
Greek	102	154	93
Latin	38	356	208
Local Names	9	2	4
Eponym	3	236	119
Toponym	11	145	107
Genus	0	5	0
Unknown	0	1	3
Mythology	3	7	2
Other	0	9	3
Total	**131**	**850**	**484**

A large number of reptilian species and subspecies (236 species and 119 subspecies) were eponyms named after people. Six of these account for some of the most common eponyms and they dominated for a brief period in the 1930s, although we can only speculate why that was the case. They include *barbouri* (5 taxa), *granti* (5), *lewisi* (5), *pleii* or *plei* (4), *schwartzi* or *albertschwartzi* (7), and *stejnegeri* (4).

Of the eponymous epithets, Thomas Barbour (1884–1946), an American herpetologist at the Museum

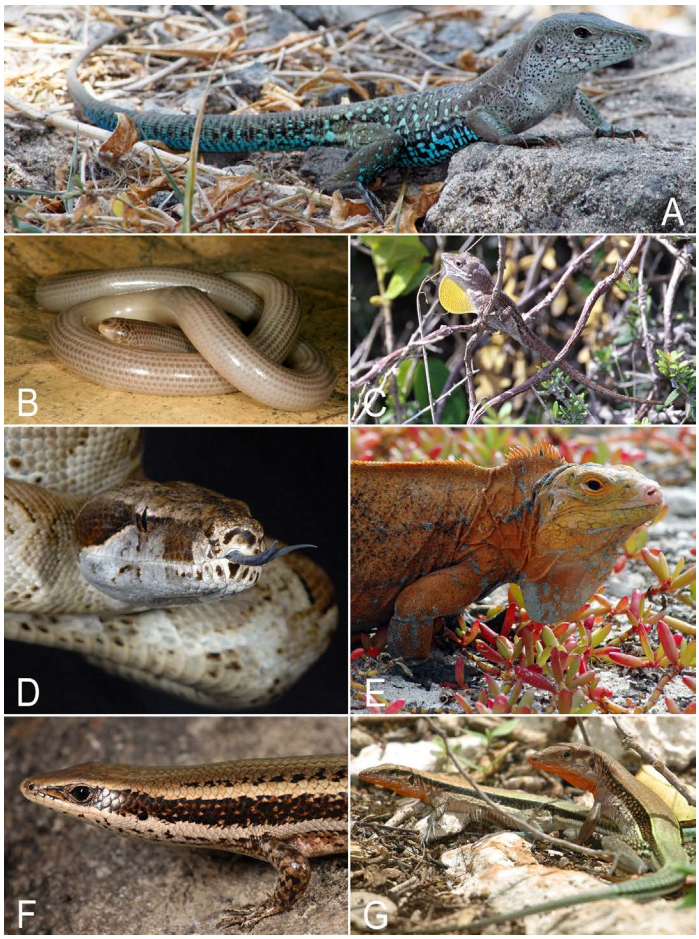

Figure 2. Examples of categories of etymologies of reptiles from the Greater Caribbean. **(A)** *Ameiva tobogana*: the generic name is originally from the Tupí language, the specific toponym refers to the type locality (Tobago). **(B)** *Amerotyphlops tasymicris*: the generic name of this blindsnake refers to America plus the Greek typhlós (τυφλός) (= blind); the specific name is an anagram of Myristica, the generic name of Nutmeg, a prominent agricultural tree in Grenada. **(C)** *Anolis gingivinus*: the generic name is from the French l'anole, which is derived from an aboriginal West Indian word meaning "lizard"; the specific name is from the Latin gingiva (= gums), possibly a reference to the light supralabial lines of these lizards. **(D)** *Boa nebulosa*: the generic name is from the Latin boa (= large water snake) (although it might be from the Latin bos [= cow], because, according to Pliny the Elder, these snakes are said to feed by sucking cows (Fretey 2019); the specific name is from the Latin nebulosus (= misty, foggy, clouded), a reference to the dark clouded appearance of these snakes. **(E)** *Cyclura rileyi*: the generic name is from the Greek cyclos (κύκλος) (= ring, circle) and oura (ουρά) (= tail), a reference to the "tail verticillate circular at its base"; the species was named after Joseph Harvey Riley (1873–1941), a biologist and ornithologist at the Smithsonian (1896–1941). **(F)** *Mabuya dominicana*: the generic name was used by native Americans for various types of lizards; the specific name is a toponym referring to the type locality (Dominica, Lesser Antilles). **(G)** *Pholidoscelis taeniurus vulcanalis*: the generic name is from the Greek pholidos (φολίδος) (= scale) and skelos (σκελός) (= leg), a reference to the large scales on the legs of these lizards; the specific name is from the Latin taenia (= ribbon) and the Greek oura (ουρά) (= tail), a reference to the striped tails in this species; the subspecific name is from the Latin vulcanalis (= belonging to Vulcan, Roman god of fire), an allusion to the vivid orange throat in this subspecies. Photos by Robert Powell (A, C–F), Mel José Rivero Rodríguez (B), and Alejandro J. Sánchez Muñoz (G).

of Comparative Zoology at Harvard, was one of the most-honored. In fact, another four subspecies were named after Barbour's wife Rosamond (*Hypsirhynchus parvifrons rosamondae* and *Pholidoscelis taeniurus rosamondae*) and daughters Julia and Louisa (*Anolis distichus juliae* and *Leiocephalus lunatus louisae*). Major Chapman Grant (1887–1983), a grandson of Ulysses S. Grant, 18th President of the United States, not only participated in several expeditions but also started the journal *Herpetologica* (1932) and co-founded the Herpetologists' League (1936). C. Bernard Lewis was curator of the Institute of Jamaica and collector of several of the types that others used to describe new species or subspecies. Note that *Leiocephalus lunatus lewisi* was named after J. K. Lewis, who we as-

sume was not related to C. B. Lewis. Auguste Plée (1787–1825) was a collector for the Museum National d'Histoire Naturelle in Paris. Ironically, the four taxa named after him were technically misspelled (e.g., *Diploglossus pleii* and *Pholidoscelis plei*); we do not know why his French compatriots used *pleii* or *plei* instead of *pleei*. Leonard Stejneger was a Norwegian-born herpetologist who moved to the United States in 1881 and became curator of reptiles at the Smithsonian Institution in 1889. Finally, Albert Schwartz, the doyen of Caribbean herpetology, rightfully topped all of the aforementioned scientists by having seven taxa named after him, including *Pholidoscelis auberi schwartzi*, a double-eponym (named also after Pedro Alejandro Auber [1786–1843], a Cuban botanist).

Of note is that some of these namesakes had many more species named after them outside the Caribbean. For instance, a total of 17 species eponyms recognize Thomas Barbour and 13 honor Stejneger. This seems perfectly justified, as Barbour was one of the most productive reptile taxonomists (after Schwartz) with 112 new taxa described. Similarly, Stejneger described 71 species that are still considered valid (Uetz and Stylianou 2018).

Toponyms are another common source of names, with 263 nomina being derived from place names. Five toponyms (*altavelensis*, *dominicanus* or similar, *monensis*, *septentrionalis*, and *trinitatus*) are used for four species or subspecies each.

Ninety-four names of genera, species, and subspecies were named after other sources. These include species bearing the same name as their genus (e.g., *Caretta caretta*, *Clelia clelia*, etc.). About a dozen names were named after local words or languages. For example, the generic name *Ameiva* is of Tupí language origin; it was used by Georg Marcgrave's Amerindian hosts when he visited 17th-century Dutch Brazil (Marcgrave 1648), where local people spoke the now extinct language Tupí. Another example is *Sphaerodactylus fantasticus karukera*, which was named after the Carib vernacular name "karukera" for what is now known as Guadeloupe (Fretey 2023). However, local and other names never played a significant role in the etymologies of Caribbean species or subspecies.

About ten taxa were named after mythological figures. The genus *Lachesis* was named after Lachesis, one of the three Fates in Greek mythology (fitting for a venomous snake!) (Gotch 1986), *Sphaerodactylus ciguapa* after "La Ciguapa," the name of a mythical humanoid in Dominican folklore supposed to inhabit the high mountains of the Dominican Republic (Daza and Bauer 2012), and *Anolis lineatopus merope* refers to the faintest of the Pleiades: of seven sisters, Merope was the only one to marry a mortal, her star therefore shines less brightly than those of her sisters (Underwood and Williams 1959).

Table 2. Top-12 most prolific authors describing reptilian taxa from the Greater Caribbean. The Duméril brothers published most of their descriptions together and/or with Gabriel Bibron, but A.M.C. Duméril was apparently the leading figure in that team. All numbers are for currently accepted names, not for the original names.

Author	Genera	Species	Subspecies
Albert Schwartz	0	65	232
S. Blair Hedges	14	109	0
Richard Thomas	0	59	36
Edward Drinker Cope	9	72	11
Orlando H. Garrido	0	44	44
Thomas Barbour	0	43	26
André Marie Constant Duméril *et al.*	5	39	2
Doris Cochran	1	23	15
Carolus Linnaeus	3	37	1
Samuel W. Garman	0	29	4
Chapman Grant	0	23	10
John Edward Gray	13	23	0
Total	**45**	**566**	**381**

The authors of about a dozen taxa have come up with sometimes even more creative derivations of names (Table 2). For example, *Sphaerodactylus ladae* was named after a car. Thomas and Hedges (1988) named the species "in honor of a reliable companion who steered us into many otherwise inaccessible areas in Hispaniola." The authors were a bit cryptic about the etymology because the car was manufactured in the Soviet Union, their funding was from the U.S. government, and it was still the Cold War (Pauwels and Wahlgren 2012). The specific name of *Amerotyphlops tasymicris* is an anagram of *Myristica*, the genus of the nutmeg, a common tree in the horticultural forests of Grenada (Thomas 1974). *Caraiba andreae melopyrrha* was named after the Cuban Bullfinch (*Melopyrrha nigra*), local name "negrito," presumably an allusion to the "shiny black" dorsal ground color (Thomas and Garrido 1967). *Cubophis vudii utowanae* was named after the research yacht Utowana, owned by Allison Vincent Armour (1863–1941), a meatpacking millionaire from Chicago and the namesake of *Anolis allisoni* (Barbour and Shreve 1935).

We also examined the historical development of how taxa were named (Fig. 3). Notable is that species descriptions were published on a relatively steady rate over almost 200 years, starting at a rate of 20 species per decade in the 1820s. This rate fluctuated only modestly between 20 and 60 species per decade (Fig. 3a). Most

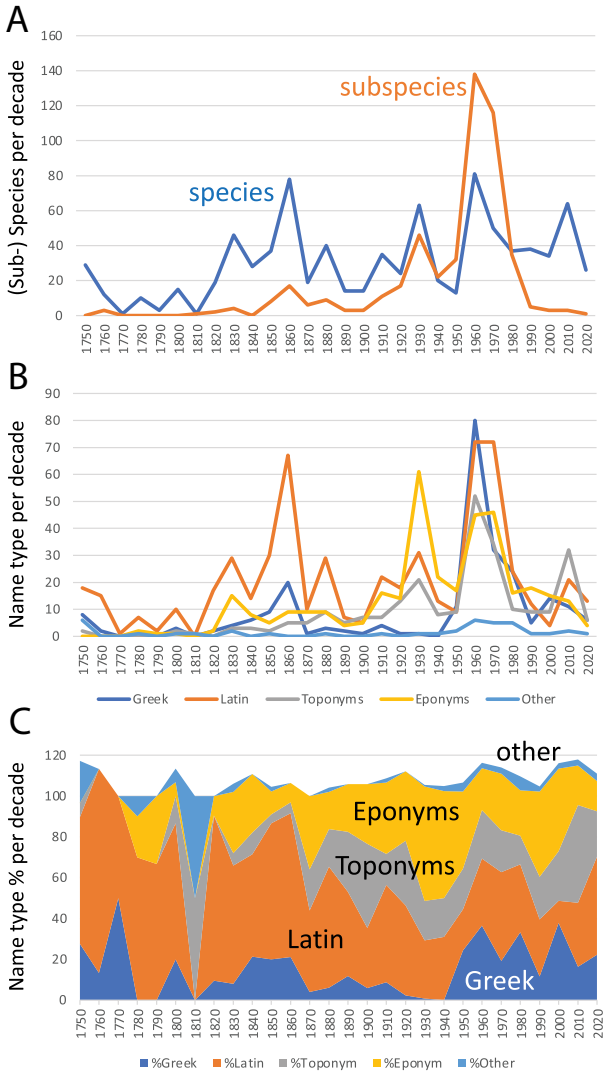

Figure 3. Etymologies of Caribbean reptiles over the past 266 years: **(A)** Number of species and subspecies described. **(B)** Number of species + subspecies and their etymologies. **(C)** Fractions of names by etymological categories. Percentages often add up to more than 100% because many names are composites (e.g., Greek and Latin) and were thus counted in each category.

names in the 1800s were derived from Latin and a smaller fraction from Greek (Fig. 3b–c).

However, the pattern is different for subspecies, which were not used much until the 1930s and then had their glory days from the 1960s to 1980s, driven mainly by Albert Schwartz (1923–1992), who described or co-described 232 subspecies (and 65 species). As a result, Schwartz was among the top-10 reptile taxonomists of all time (as measured by still-valid names) compiled by Uetz and Stylianou (2018).

A mere dozen herpetologists described 45 of 131 genera, 566 of 850 species, and 381 of 484 subspecies, or almost two-thirds of all reptilian taxa in the Greater Caribbean (Table 2). S. Blair Hedges (14) and John Edward Gray (13) named the most genera, the latter following the period when the majority of species were assigned to a few Linnaean genera. Hedges has named the most species (109), followed by Edward Drinker Cope (72), Albert Schwartz (65), Richard Thomas (59), Orlando H. Garrido (44), and Thomas Barbour (43). Cope was active in the 19th Century when many species were undescribed; Barbour was active when the region was being rediscovered in the first half of the 20th Century; Schwartz, Thomas, and Garrido often collaborated during the latter half of the 20th Century, and Hedges continues that tradition to this day. As was common at the time, Schwartz, who named 232 subspecies, recognized as distinct taxa populations that varied sometimes very little, albeit consistently, from one another. As mentioned above, Orlando H. Garrido (44) and Richard Thomas (36 subspecies), who ranked second and third in the number of subspecific taxa described, frequently collaborated with Schwartz and obviously shared his views on the utility of that rank. Generally speaking, all of these individuals used a largely conservative approach when naming taxa, typically coining names based on Greek and Latin origins along with toponyms and eponyms.

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Supplemental Data

Supplemental Table S1 (Excel spreadsheet available at http://dx.doi.org/10.6084/m9.figshare.28334954). All reptilian taxa in the Greater Caribbean are listed with their taxonomic rank (genus, species, subspecies), authors and years of publication, and their etymological categories (Greek, Latin, toponym, eponym, others), and the actual etymologies. Extinct species can be found by searching the etymology field (column I) for the word "extinct." For references to original descriptions, see Uetz and Stylianou (2018) and the Reptile Database (Uetz et al. 2025), which also cites sources for individual etymologies.

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