

What's in a Name? Standardization of Vernacular Names for *Trichechus* *manatus*

Antonio A. Mignucci-Giannoni, Daniel
González-Socoloske, et al.



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What's in a Name? Standardization of Vernacular Names for *Trichechus manatus*

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Abstract - *Trichechus manatus* is one of 3 recognized extant species of manatees of the mammalian Order Sirenia. Currently, it is known by various vernacular names, none of which are descriptive of its biology and known distribution. This lack of standardization has led to confusion and miscommunication, hindering conservation efforts for this species. We propose standardizing the vernacular names used to refer to the species and its 2 subspecies based on appropriate geographical characterization in English, Spanish, French, Dutch, and Portuguese, respectively: “American Manatee”, “Manatí de las Américas”, “Lamantin d’Amérique”, “Amerikaanse Lamantijn”, and “Peixe-boi-das-Américas” for *T. manatus*; “Florida Manatee”, “Manatí de la Florida”, “Lamantin de Floride”, “Florida Lamantijn”, and “Peixe-boi-da-Flórida” for *T. m. latirostris*; and “Greater Caribbean Manatee”, “Manatí del Gran Caribe”, “Lamantin des Grandes Caraïbe”, “Groter Caribische Lamantijn”, and “Peixe-boi-do-Grande-Caribe” for *T. m. manatus*. By establishing clear, universally recognized, and standardized vernacular names, we foster a sense of connection and scientific communication responsibility, improving public awareness and understanding of these animals and ultimately aiding in their conservation.

Introduction

“What’s in a name? That which we call a rose by any other name would smell as sweet,” wrote William Shakespeare in his famous play *Romeo and Juliet* (Shakespeare 1597). The implication is that the name we give something is arbitrary and does not change what that thing really is. Unfortunately, just as Juliet discovered that Romeo’s name had implications about how others perceived him and their relationship, what we name things can have significant ramifications on how they are perceived in the public and in professional spheres. In the case of species threatened with extinction, how we refer to them can affect how the public perceives those species and can hinder conservation efforts.

Vernacular or common names are used in everyday language to refer to a species or a group of similar species. Vernacular names vary by geographic location, language, and culture, and are, therefore, not used in scientific literature to refer uniquely to a species. Instead, species are named by scientists in Latin or Greek-derived dual names using the binomial system of genus and species standardized by Carl Linnaeus in *Systema Naturae* (Linnaeus 1758). For animals, the rules on how species can be scientifically named and how to settle disputes are established by the International Code of Zoological Nomenclature (ICZN 1999). Attempts have been made to standardize vernacular names applied to some animal taxa since early in the 20th century (Dice 1937, Doran 1903), including insects (Committee on the Common Names of Insects 2023), fish (Page et al. 2023), reptiles and amphibians (Committee on Standard English and Scientific Names 2017), birds (Bernis 1995, Devillers and Ouellet 1993, Gill et al. 2023), mammals (Álvarez-Castañeda and González-Ruíz 2018, Wilson 2000), and mammals living in aquatic environments (Mignucci-Giannoni 1984, Gallo-Reynoso and Rojas-Bracho 1985). However, there is no universal acceptance for the vernacular names used for manatees, which have increasingly gained public attention in the past 40 years. For example, *Trichechus manatus* L. (Fig. 1), the manatee species that inhabits marine, estuarine, brackish, and riverine waters off the Atlantic coasts of North America, Central America, the

Caribbean, and the northeastern part of South America (Fig. 2), is currently known in English as the “West Indian Manatee”, “Caribbean Manatee”, “Florida Manatee”, “American Manatee”, and “Sea Cow”; in Spanish as “Manatí de las Indias Occidentales”, “Manatí Antillano”, “Manatí Americano”, “Manatí de la Florida”, “Manatí Floridiano”, and “Vaca Marina”; in French as “Lamantin”, “Lamantin des Antilles”, and “Vache de Mer”; in Dutch as “Sekoe”, “Zeekoe”, “Caribische Lamantijn”, and “Amerikaanse Lamantijn”; and in Portuguese as “Peixe-boi” and “Peixe-boi Marinho”, among many other names (Table 1). Vernacular names during



Figure 1. The 2 currently recognized subspecies of *Trichechus manatus*: (A) *T. m. latirostris* (photograph © Jason Gulley) and (B) *T. m. manatus* (photograph © Alejandro Avampini).



Figure 2. Current distribution of *Trichechus manatus* and its 2 currently recognized subspecies: *T. m. latirostris* (pink lines) and *T. m. manatus* (yellow lines).

Table 1. Current and proposed use of vernacular names in English, Spanish, French, Dutch, and Portuguese for *Trichechus manatus* and its 2 recognized subspecies.

Use	<i>T. manatus</i>	<i>T. manatus latirostris</i>	<i>T. manatus manatus</i>
Current	English	Florida Manatee, Caribbean Manatee, North American Manatee	Antillean Manatee, Caribbean Manatee, West Indian Manatee, Manatee of the West Indies, South American Manatee, Sea Cow
	Spanish	Manatí de las Indias Occidentales, Manatí Caribeño, Manatí Americano, Manatí, Vaca Marina, Vaquita Marina	Manatí Antillano, Manatí Caribeño, Manatí del Caribe, Manatí de las Indias Occidentales, Manatí
	French	Lamantin ² , Vache de Mer	Lamantin des Antilles, Lamantin Antillais, Lamantin des Caraïbes, Lamantin, Lamantin d'Amérique, Manlantee, Kochon Lanmè, Vache de Mer
	Dutch	Sekoe, Zeekoe, Caribische Lamantijn, Amerikaanse Lamantijn	Caribische Lamantijn
	Portuguese	Peixe-boi ³ Marinho, Peixe-boi das Índias Ocidentais	Peixe-boi Marinho, Peixe-boi Caribenho, Peixe-boi-das-Antilhas
Proposed	English	American Manatee	Greater Caribbean Manatee
	Spanish	Manatí de las Américas	Manatí del Gran Caribe
	French	Lamantin d'Amérique	Lamantin de la Grande Caraïbe
	Dutch	Amerikaanse Lamantijn	Groter Caribische Lamantijn
	Portuguese	Peixe-boi-das-Américas	Peixe-boi-do-Grande-Caribe

¹Manatee (Eng. n. masc.), from the Spanish manatí (Mártir de Anglería 1516), taken from Arawak-Taino ma 'nat' i, meaning "large" (ma'), "breast" (nat'), and "this one here" (i'), or alternatively, "not" (ma'), "narrow" (nat'), and "this one here" (i') (Durand 1950, Miner-Solá 2002, Martínez-Prieto 2018).

²Lamantin (Fr. n. masc.) Alteration as early as 1640 of Spanish manatí and Arawak-Taino ma 'nat' i; by association with lamenter to mean "lament, bewail" because of the animal's cry.

³Peixe-boi (Port. n. masc.) meaning "fish ox."

the early centuries of Americas' European colonization are even more varied, including "American Lamantin", "Boi Marinho", "Buey Marino", "Fish Manatee", "Homês Marinhos", "Lamantino", "Lamentin", "Lamatin of America", "Lamentino", "Magnatis", "Malati", "Malatías", "Manatea", "Manato", "Manentine", "Manaty", "Peces-cerdos", "Peixemulher", "Petit Lamentin du Nord", "Pexe-Muller", "Pegebuey", "Pez-Buey", "Pez Muger", "Pez-mujer", "Pez-toro", "Poisson Bœuf", and "Vaque Marin" (Durand 1950, Fernández-Gordillo 2006, Goode 1884, Harlan 1824, Luna 2001), in addition to Christopher Columbus' first mention of "serenas" (sirenas or mermaids), observed on 8 January 1493 off the coast of río Yaque del Norte, Montecristi in the Dominican Republic (Fernández de Navarrete 1825, Irving 1828).

Unfortunately, when using vernacular names, confusion can arise when 2 species have the same vernacular name (e.g., angelfish, which can refer to the freshwater tropical fish in the genus *Pterophyllum* or marine fish in the Pomacanthidae or the unrelated marine fish *Brama brama* (Bonnaterre), or when 1 species has many vernacular names (e.g., *Puma concolor* (L.), which has over 40 vernacular names in English alone including Mountain Lion, Cougar, Puma, and Panther). Vernacular names can also give rise to confusion about phylogenetic relationships (e.g., *Cynocephalus volans* (L.) [Philippine Flying Lemur] and *Galeopterus variegatus* (Audebert) [Sunda Flying Lemur], which are not lemurs nor do they fly; electric eels (genus *Electrophorus*), which are a type of electroreceptive neotropical freshwater knifefish, not true eels of the Order Anguilliformes, which are mostly marine and do not produce electricity; *Rhincodon typus* A. Smith [Whale Shark], which is a cartilaginous fish and not a whale, etc.), or geographic regions where they are found (e.g., *Branta canadensis* (L.) [Canada Goose], which is found throughout North America and in parts of Europe, not only in Canada; *Didelphis virginiana* (Kerr) [Virginia Opossum], which is found throughout Central and North America from Ontario to Costa Rica and not just in the US state of Virginia, as its name would imply). Manatees are no different in this context. In Guatemala they are sometimes called, in an endearing way, "Vaquita Marina", which may be confusing as the porpoise *Phocoena sinus* Norris and McFarland, which is endemic to Mexico's Gulf of California, is known in both English and Spanish as the Vaquita.

Nevertheless, vernacular names play an important role in outreach, conservation efforts, and to some extent in research, because most people do not use scientific Latin-Greek names to refer to species. Commonly, flagship species, like manatees, are often used for general conservation decision-making, chosen according to a series of criteria related to the local and social context of an area. Among these, the use of vernacular names of the species can influence public perception, create a sense of communal location-based support, help avoid confusion, and improve the image and conservation importance of a species (Bowen-Jones and Entwistle 2002, Sarasa et al. 2012).

Here, we propose standardizing the vernacular name used to refer to the manatee species *T. manatus*, and its 2 currently recognized subspecies (*T. m. latirostris* (Harlan) and *T. m. manatus* L.; Domning and Hayek 1986).

The Current Situation

Trichechus manatus is 1 of 3 recognized extant species of manatees of the Order Sirenia (SMM Committee on Taxonomy 2023). The other 2 are *T. senegalensis* Link (African Manatee) and *T. inunguis* (Natterer) (Amazonian Manatee). The English vernacular names used most to refer to *T. manatus* in the scientific literature are “West Indian Manatee” and “Caribbean Manatee”. In addition, the 2 recognized subspecies are most referred to as the “Florida Manatee” for *T. m. latirostris* and the “Antillean Manatee” for *T. m. manatus*. When Doming and Hayek (1986) described the 2 subspecies based on differences in the cranial morphology, they noted that until that point, *T. m. manatus* did not bear a vernacular name, and based using “Antillean Manatee” on 2 papers published in the 1700s which used “Grand Lamantin des Antilles” (Buffon 1782) and *Trichechus antillarum* (Link 1795). However, there is no standard. Since Doming and Hayek (1986), most publications use “Florida Manatee” and “Antillean Manatee” to refer to the 2 subspecies, some papers refer to the subspecies *T. m. latirostris* as the “Caribbean Manatee” (Mass et al. 1997), while others refer to the species *T. manatus* as the “Caribbean Manatee” (Castelblanco-Martínez et al. 2012). Some publications refer to *T. manatus* as the “American Manatee” (Baughman 1946, Lima et al. 2021), and Gunter (1941) referred to *T. manatus* as the “American Manatee” but referred to the subspecies *T. m. manatus* as the “West Indian Manatee.” True (1884) referred to *T. manatus* as the “American Manatee”, named the one in the Florida peninsula as “Florida Manatee”, but assigned “South American Manatee” to the species’ southern form and “West Indian Manatee” to the one in the West Indies (with no detail of what this geography means), while adding that the latter may actually be the same as the “Florida Manatee”. Hatt (1934) distinguished the African Manatee from the “American Coastal Manatees” and the “Florida Manatee”, which he made part of the “West Indian Manatee”. Husar (1978) called the species “West Indian Manatee”, and while not-peer-reviewed, the Wikipedia article on *T. manatus* refers to it as the “North American Manatee” in addition to the “West Indian Manatee” (Wikipedia 2023). To add to the confusion, some papers have used the name of a geographic location before the word “manatee”, which can mislead readers into thinking the authors are talking about a unique species or subspecies (e.g., “Belize manatee”; Hunter et al. 2010; “Brazil Antillean manatee”; Barros et al. 2016). In the coastal waters of Brazil, some scientists have used the term “marine manatee” or “peixe-boi marinho” to distinguish *T. manatus* from the freshwater manatee species *T. inunguis* (Amazonian Manatee) found in the Amazon Basin (Bonfietti Izidoro et al. 2022). In addition, depending on the Spanish-speaking country, *T. m. manatus* may be referred to as “Manatí”, “Manatí Antillano”, “Manatí Caribeño”, “Manatí de las Indias Occidentales”, “Vaca de Agua”, “Vaca de Río”, or “Vaca Marina”. In French-speaking Wider Caribbean countries and territories (French Guiana, Haiti, Saint-Martin, Martinique, and Guadeloupe, the latter 3 where manatees are extinct), this species is referred to as “Lamantin Antillais”, “Lamantin d’Amérique”, “Lamantin des Antilles”, “Lamantin des Caraïbes” (Gargominy et al. 2022), and “Kochon Lanmè” (Haiti’s creole). The regional Red List of French Guiana (IUCN

France et al. 2017) used “Lamantin Antillais”, while the *Atlas des Mammifères Sauvages de France. Volume 1: Mammifères Marins* (Savouré-Soublet et al 2016) preferred using “Lamantin d’Amérique”.

The main problem is two-fold: one of consistency and one of geographical appropriateness. There is no consistent use of a name in either English, Spanish, French, or Portuguese for the species and the 2 recognized subspecies. Additionally, the geographical references to the West Indies, Caribbean, or Antilles are misleading based on the geographical distribution of the species. *Trichechus manatus* inhabits shallow coastal areas, estuaries, and rivers, from the southeast coast of the United States (US) in the western North Atlantic Ocean to northeastern Brazil in the western South Atlantic Ocean. When water temperatures rise during the summer months in the northern hemisphere, *T. manatus* are also commonly spotted along the US coast of Georgia and the Carolinas (Deutsch et al. 2003), even venturing as far north as Massachusetts in New England. Along the coast of the Gulf of Mexico, *T. manatus* has been recorded in all the Gulf Coast states of the US (from Florida to Texas; Cloyed et al. 2022, Fertl et al. 2005) and Mexico (from Tamaulipas to Yucatan; Gómez-Carrasco et al. 2018, Robles Herrejon et al. 2020). In the Caribbean Sea, *T. manatus* is found throughout the Greater Antilles (Cuba, Jamaica, Hispaniola, and Puerto Rico) but no longer inhabits the Lesser Antilles. Lately, *T. manatus* have been commonly sighted in some parts of the Lucayan Archipelago (The Bahamas; Melillo-Sweeting et al. 2011), and in the Virgin Islands (which are part of the Puerto Rico Archipelago; A.A. Mignucci-Giannoni, unpubl. data). On the Caribbean coasts of Central and northern South America, *T. manatus* is found in every country, from Quintana Roo, Mexico, to Venezuela and the nearby island of Trinidad, but not in Tobago and the Leeward Antilles (Self-Sullivan and Mignucci-Giannoni 2012). The rest of the range extends through the coastal region of the North and South Atlantic oceans from Guyana to northeast Brazil, as far south as Alagoas (Fig. 2; Luna et al. 2018). Some important populations of *T. manatus* are found hundreds of kilometers upstream in rivers such as the Orinoco, Magdalena, and Usumacinta, and their associated wetlands (Castelblanco-Martínez et al. 2009, Montoya-Ospina et al. 2001, Olivera-Gómez et al. 2022, Rodas-Trejo et al. 2020). Likely, individuals in those populations rarely venture out to coastal areas (Debrot et al. 2022), and there is evidence of 2 ecotypes of *T. manatus*, freshwater and coastal/marine (Castelblanco-Martínez et al. 2021). Domning and Hayek (1986) detail that manatees in Texas may be strays of *T. m. manatus* from Mexico’s populations, and recently manatees in The Bahamas, Cuba and Mexico’s Caribbean have been identified as strays of *T. m. latirostris* from Florida’s population (Álvarez-Alemán et al. 2010, Castelblanco-Martínez et al. 2022, Melillo-Sweeting et al. 2011). In The Bahamas, *T. m. latirostris* dispersed from Florida have established a local breeding population (D. Claridge, unpubl. data), but recent sightings in the southern part of The Bahamas (San Salvador, Rum Cay, Mayaguana Islands, Inagua Island) and in Turks and Caicos have been reported as both *T. m. latirostris* as well as *T. m. manatus*, presumably from neighboring Cuba or Hispaniola.

The “West Indies” is a subregion of North America, including the Greater Antilles, the Lesser Antilles, and the Lucayan Archipelago, with some countries in Central America, the Guianas, and even Trinidad and Bermuda identifying themselves as part of the “West Indies” (Fig. 3). In current times, “West Indies” has been viewed as a failed misnomer of this area based on Columbus’ attempt to discover a route to the “Indies”, and thus has a sad resonance of colonial America. The “Antilles” encompass the Greater Antilles and the Lesser Antilles; the latter consist of the northern Leeward Islands, Windward Islands, and Leeward Antilles just north of Venezuela (Fig. 3). In contrast, the “Caribbean” is the sea bound by the Greater Antilles to the north, the Lesser Antilles to the east, the eastern part of Yucatan Peninsula in Mexico and Central America to the west, and the north coast of South America from Colombia to Venezuela and Trinidad. Additionally, the terms “Wider Caribbean” and “Greater Caribbean” have been recently coined. Biogeographically, Briggs and Bowen (2012) and Robertson and Cramer (2014), describe a much wider Caribbean, termed “Greater Caribbean”, which encompasses a northern, subtropical province that includes the Gulf of Mexico and the southeastern US; a central, tropical province including the West Indies, Bermuda, and Central America; and a southern, upwelling-affected province spanning the entire continental shelf of northern South America, south to at least Guyana or various points scattered throughout the length of Brazil (Spalding et al. 2007). While “Wider Caribbean” is used in a geopolitical manner (UNEP 1982), Greater Caribbean is used in a biogeographical sense (Briggs and Bowen 2012, Robertson and Cramer 2014).

Due to the wide distribution of the species and the important populations found in freshwater habitats, we feel that neither “West Indian,” “Antillean,” “Caribbean”, nor their Spanish, French, Dutch, and Portuguese equivalents are appropriate vernacular names for this species, and thus are inadequate as the specific and

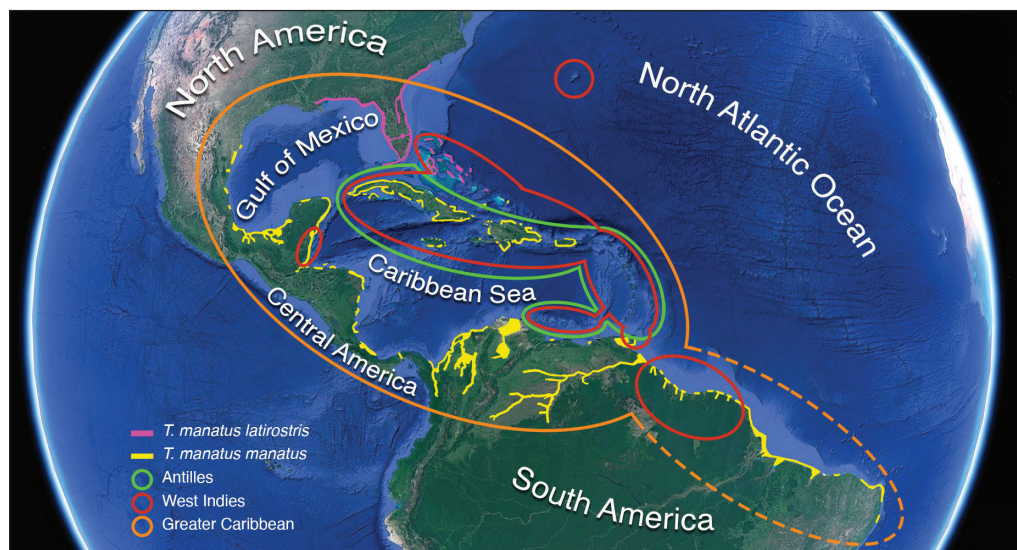


Figure 3. Geographical delimitations for the West Indies (red circle), Antilles (green circle), and biogeographical delimitation of the Greater Caribbean (orange circle). Yellow and pink demarcations are the current distribution of *Trichechus manatus*.

subspecific vernacular names. Even Linnaeus (1758), in his original description, indicated that the manatee inhabited what he termed “Mari Americano”, and it was not until early in the 20th century that Thomas (1911) later designated the type locality as “West Indies”.

Proposed Vernacular Names

There are numerous indigenous vernacular names used by native or local communities throughout the manatee’s geographical distribution (Table 2; Bonfietti Izidoro et al. 2022, Durand 1950, Goode 1884, Linares 1998, Luna 2001, Royero 1995, Silva et al. 2017). Not only do we respect the local use by these communities,

Table 2. Indigenous or local names used for *Trichechus manatus* in the Americas. [Table continued on following page.]

Indigenous or local name	Ethnicity	Countries where used
Apcha		Venezuela
Apcia		Venezuela
Apila	Achagua	Venezuela
Aviá		Venezuela
Berí	Yaruro	Venezuela
Buso		Venezuela
Chill	Maya	Mexico
Cojumero		Guyana
Gáragoá		Brazil
Goaragoá		Brazil
Goaravá		Brazil
Guarabá		Brazil
Guaragua		Brazil
Guaraná		Brazil
Hëmiñã	Piaroa	Venezuela
Honinãba	Warao	Venezuela
Igarakuê		Brazil
Igpupi Ara		Brazil
Iguarágua or Iguaraguã		Brazil
Ipupiára		Brazil
Iupipiápre		Brazil
Juarauhá		Brazil
Juhmunuli	Wayana	French Guiana, Guyana, Suriname
Kariima	Bari	Venezuela
Kochon Lanmè	Creole	Haiti
Kuyumoro	Lokono	Barbados, French Guiana, Guyana, Suriname, Venezuela
Ma’nat’i’	Taino	Bahamas, Cuba, Dominican Republic, Haiti, Jamaica, Puerto Rico
Malanti	Creole	Belize
Man Man D’lo	Creole	Guadeloupe
Manatí	Macushi	Brazil, French Guiana, Guyana, Suriname, Venezuela
Manatí	Trió, Akawaio	Brazil, Suriname
Manatila (female)	Canal del Dique	Colombia

but the simple act of collating these names and making them available can be of great aid in field research and conservation in various ways. Nevertheless, our intent is to standardize the vernacular names in the 5 main languages (English, Spanish, French, Dutch, and Portuguese) spoken within the geographical range of *T. manatus*.

To aid in the effort to standardize vernacular names for *T. manatus*, we polled 24 working professionals who specialize in manatees in each of the countries where *T. manatus* is found and all the co-authors of this publication, on the use of the proposed standardized vernacular names. Additionally, we surveyed 28 additional Spanish-speaking professionals with manatee expertise in 11 Spanish-speaking countries to vote on the Spanish names to be used herein.

We propose standardizing the vernacular names of *T. manatus* to “American Manatee” in English, “Manatí de las Américas” in Spanish, “Lamantin d’Amérique” in French, “Amerikaanse Lamantijn” in Dutch, and “Peixe-boi-das-Américas” in Portuguese (Table 1). Our reasons are as follows:

1. *Trichechus manatus* was described by Linnaeus (1758). In the description, he indicated the habitat as “Mari Americano” or American Ocean or Sea. No type or location of type was indicated. Thomas (1911) later designated the type locality as West Indies. Therefore, using the vernacular name of “American Manatee” is more faithful to the original locality indicated by Linnaeus (1758).

Table 2, continued.

Indigenous or local name	Ethnicity	Countries where used
Manatiles (plural)	Canal del Dique	Colombia
Manatin	Maya, S & SE Mexico	Mexico
Manatú	Pemon	Brazil, Guyana, Venezuela
Manaty	Galibi Carib, Apalaí	Brazil, French Guiana, Guyana, Suriname, Venezuela
Manay		Brazil
Manmand’lo		Guadeloupe
Mene Tsamuito	Sikuani	Colombia, Venezuela
Ouãraouã		Brazil
Palpa or Paalpa	Miskito, Rama	Honduras, Nicaragua
Téek	Maya	Mexico
Tlacamichin	Náhuatl	Mexico
Vache Dilo	Creole	French Guiana, French West Indies
Varagua		Brazil
Wakax Ha'	Maya	Guatemala, Mexico
Watercow		Guyana
Waterkoe	Saramaka	Suriname
Watrakaw	Sranantongo	French Guiana, Suriname
Yarawa	Kali'na	French Guiana, Guyana, Venezuela
Yuárauá or Yauárauá		Brazil
Yum	Puinare	Colombia, Venezuela
Yumigl	Palikur	French Guiana, Brazil

2. The names “Caribbean”, “West Indian”, or “Antillean” are misleading because they refer to small subsets of the geographic range where *T. manatus* is currently found, specifically excluding the Gulf of Mexico and the Atlantic coasts of the Guianas and Brazil. In addition, those names give the impression that the species is only found in marine waters when substantial populations are often found in freshwater or brackish habitats. The name “American Manatee” better encompasses the full range of the species.
3. In harmony with the vernacular names used most frequently for the other 2 species of manatee (the Amazonian Manatee and African Manatee), “American Manatee” reflects the overall geographic range of the species. While there are 2 species of manatees in the Americas, the Amazonian Manatee is distinguished by the well-known region of the Amazon River Basin.

We further propose the continued use of “Florida Manatee”, “Manatí de la Florida”, “Lamantin de Floride”, “Florida Lamantijn”, and “Peixe-boi-da-Flórida” as the vernacular names in English, Spanish, French, Dutch, and Portuguese, respectively, of the subspecies *T. m. latirostris* (Table 1). However, we encounter difficulties in appropriately re-naming the subspecies *T. m. manatus* given its wide distribution and the different habitats the species uses. The use of “Antillean Manatee” is a homage of Domning and Hayek (1986) to Buffon (1782; “Grand Lamantin des Antilles”) and Link (1795; *Trichechus antillarum*). While most manatee scientists have used the term “Antillean Manatee” in the scientific literature since Doming and Hayek’s (1986) description, locally it is more commonly known as “Caribbean Manatee”. However, both demonyms, “Caribbean” and “Antillean”, exclude *T. m. manatus* inhabiting the Gulf of Mexico, the Guianas, Brazil, and the river systems of Colombia, Guatemala, Mexico, and Venezuela. Several studies consider that *T. m. manatus* may represent various distinct genetic populations (García-Rodríguez et al. 1998, Vianna et al. 2006) that differ from the subspecies stated by Domning and Hayek (1986), and there are even thoughts among the manatee scientific community that new subspecies may be close to being described (Barros et al. 2016). A more representative term that encompasses the known distribution of *T. m. manatus* would be the “Greater Caribbean” as described by Briggs and Bowen (2012) and Robertson and Cramer (2014). Perhaps the best Solomonic alternative for now is to call *T. m. manatus* the “Greater Caribbean Manatee”, “Manatí del Gran Caribe”, “Lamantin de la Grande Caraïbe”, “Groter Caribische Lamantijn”, and “Peixe-boi-do-Grande-Caribe” in English, Spanish, French, Dutch, and Portuguese, respectively (Table 1).

Scientific names for species are unequivocal to an animal’s designation. Standardized vernacular names minimize the proliferation of other vernacular names used, help communicate to lay audiences, disseminate important information about the species, and raise conservation awareness about threats, and plight for survival (Marinho and Scatigna 2022). It also promotes inclusion and popularization of science with the public (including interested parties such as fishers, boaters, divers,

government managers, legislators, educators, etc.) who encounter the species daily in the field or in the classrooms. However, while respecting local or regional-specific names, vernacular names must be few and standardized to avoid misinterpretation and confusion (ICZN 1999). In the case of *T. manatus*, this lack of standardization has led to confusion and miscommunication, hindering conservation efforts for this vulnerable species and its endangered *T. m. manatus* subspecies. By establishing clear and universally recognized standardized names in English, Spanish, French, Dutch, and Portuguese, we foster a sense of connection and scientific language responsibility, improving public awareness and understanding of these magnificent creatures and ultimately aiding in their protection and preservation.

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Literature Cited

- Álvarez-Alemán, A., C.A. Beck, and J.A. Powell. 2010. First report of a Florida Manatee (*Trichechus manatus latirostris*) in Cuba. *Aquatic Mammals* 36(2):148–153. <https://doi.org/10.1578/AM.36.2.2010.148>
- Álvarez-Castañeda, S.T., and N. González-Ruiz. 2018. Spanish and English vernacular names of mammals of North America. *Therya* 9(1):73–84. <https://doi.org/10.12933/therya-18-587>
- Barros, H.M.D.R., A.C.O. Meirelles, F.O. Luna, M. Marmontel, P. Cordeiro-Estrela, N. Santos, and D. Astúa. 2016. Cranial and chromosomal geographic variation in manatees (Mammalia: Sirenia: Trichechidae) with the description of the Antillean Manatee karyotype in Brazil. *Journal of Zoological Systematics and Evolutionary Research* 55:73–87.
- Baughman, J.L. 1946. Some early notices on American Manatees and the mode of their capture. *Journal of Mammalogy* 27(3):234–239. <https://doi.org/10.2307/1375433>
- Bernis, F. 1995. *Diccionario de los nombres vernáculos de las aves*. Editorial Gredos, Madrid, Spain. 232 pp.
- Bonfietti Izidoro, F., R. de M. Romero, and A. Schiavetti. 2022. Knowledge of marine mammal professionals on ecosystem services associated with the Marine manatee (*Trichechus manatus*) in Brazil. *Ethnobiology and Conservation* 11:1–13. <https://doi.org/10.15451/ec2022-07-11.20-1-13>
- Bowen-Jones, E., and A. Entwistle. 2002. Identifying appropriate flagship species: The importance of culture and local contexts. *Oryx* 36(2):189–195. <https://doi.org/10.1017/S0030605302000261>
- Briggs, J.C., and B.W. Bowen. 2012. A realignment of marine biogeographic provinces with particular reference to fish distributions. *Journal of Biogeography* 39:12–30. <https://doi.org/10.1111/j.1365-2699.2011.02613.x>
- Buffon, G.L.L. de. 1782. *Histoire Naturelle, Generales, et Particuliere...Supplement, Tome Sixieme*. Imprimerie Royale, Paris, France. 405 pp.

- Castelblanco-Martínez, D., A. Bermúdez-Romero, I. Gómez-Camelo, F. Rosas, F. Trujillo, and E. Zerda-Ordoñez. 2009. Seasonality of habitat use, mortality, and reproduction of the vulnerable Antillean Manatee, *Trichechus manatus manatus*, in the Orinoco River, Colombia: Implications for conservation. *Oryx* 43(2):235–242. <https://doi.org/10.1017/S0030605307000944>
- Castelblanco-Martínez, D.N., E. Barba, J.J. Schmitter-Soto, H.A. Hernández-Arana, and B. Morales-Vela. 2012. The trophic role of the endangered Caribbean Manatee, *Trichechus manatus*, in an estuary with low abundance of seagrass. *Estuaries and Coasts* 35:60–77. <https://doi.org/10.1007/s12237-011-9420-8>
- Castelblanco-Martínez, D.N., D.H. Slone, S.S. Landeo-Yauri, E.A. Ramos, A. Alvarez-Alemán, F.L.N. Attademo, C.A. Beck, R.K. Bonde, et al. 2021. Analysis of body-condition indices reveals different ecotypes of the Antillean Manatee. *Scientific Reports* 11:19451. 14 pp. <https://doi.org/10.1038/s41598-021-98890-0>
- Castelblanco-Martínez, D.N., A. Álvarez-Alemán, R. Torres, A.L. Teague, S. Barton, K.A. Rood, E.A. Ramos and A.A. Mignucci-Giannoni. 2022. First documentation of long-distance travel by a Florida Manatee to the Mexican Caribbean. *Ethology, Ecology, and Evolution* 34(5):545–556. <https://doi.org/10.1080/03949370.2021.1967457>
- Cloyed, C.S., E.E. Hieb, K.P. DaCosta, M. Ross, and R.H. Carmichael. 2022. Habitat selection and abundance of West Indian Manatees, *Trichechus manatus*, at the margins of their expanding range. *Marine Ecology Progress Series* 696:151–67. <https://doi.org/10.3354/meps14116>
- Committee on Standard English and Scientific Names. 2017. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding, 8th edition. Society for the Study of Amphibians and Reptiles, Herpetological Circular 43. Topeka, KS. 102 pp. Available online at <https://ssarherps.org/publications/north-american-checklist/>.
- Committee on the Common Names of Insects. 2023. Common Names of Insects Database. Entomological Society of America. Annapolis, MD. Available online at <https://www.entsoc.org/publications/common-names>.
- Debrot A.O., D. Caicedo-Herrera, I. Gómez-Camelo, Y. Moná-Sanabria, C. Rosso, J. Tjalling van der Wal, and A.A. Mignucci-Giannoni. 2022. The Antillean Manatee (*Trichechus manatus manatus*) along the Caribbean coast of Colombia: Underused incidental records help identify present and past coastal-lowland hotspots. *Marine Mammal Science* 39(1):322–337. <https://doi.org/10.1111/mms.12972>
- Deutsch, C.J., J.P. Reid, R.K. Bonde, D.E. Easton, H.I. Kochman, and T.J. O'Shea. 2003. Seasonal movements, migratory behavior, and site fidelity of West Indian manatees along the Atlantic coast of the United States. *Wildlife Monographs* 151:1–77.
- Devillers, P., and H. Ouellet. 1993. Noms français des oiseaux du monde avec les équivalents latins et anglais. Commission Internationale des Noms Français des Oiseaux. MultiMondes, Sainte-Foy, Québec, Canada. <https://doi.org/10.2307/4088665>
- Dice, L.R. 1937. The common names of mammals. *Journal of Mammalogy* 18(2):223–225. <https://doi.org/10.2307/1374472>
- Domning, D.P., and L.C. Hayek. 1986. Interspecific and intraspecific morphological variation in manatees (Sirenia: *Trichechus*). *Marine Mammal Science* 2(2):87–144. <https://doi.org/10.1111/j.1748-7692.1986.tb00034.x>
- Doran, E.W. 1903. Vernacular names of animals. *American Naturalist* 37(440):551–555.
- Durand, J. 1950. Ocaso de Sirenas, en el Siglo XVI. Tezontle. Fondo de Cultura Económica, Pánuco, México. 130 pp.

- Fernández de Navarrete, M. 1825. Colección de Los Viages y Descubrimientos que Hicieron por Mar los Españoles desde Fines del Siglo XV con Varios Documentos Inéditos Concernientes a la Historia de la Marina Castellana y de los Establecimientos Españoles en Indias. Tomo I: Viages de Colón: Almirantazgo de Castilla. Imprenta Real, Madrid, Spain. 455 pp.
- Fernández-Gordillo, L. 2006. Los americanismos en el *Diccionario de Autoridades*: Tratamiento y repercusiones de algunos de estos en la trayectoria de las distintas ediciones del DRAE. *Revista de Lexicografía* 12:121–158. <https://doi.org/10.17979/rlex.2006.12.0.4769>
- Fertl, D., A.J. Schiro, G.T. Regan, C.A. Beck, N. Adimey, L. Price-May, A. Amos, G.A.J. Worthy, and R. Crossland. 2005. Manatee occurrence in the northern Gulf of Mexico, west of Florida. *Gulf and Caribbean Research* 17(1):69–94. <https://doi.org/10.18785/gcr.1701.07>
- Gallo-Reynoso, J.P., and L. Rojas-Bracho. 1985. Nombres científicos y comunes de los mamíferos marinos de Mexico. *Anales del Instituto de Biología de la Universidad Nacional Autónoma de México* 56, Serie Zoología (3):1043–1056.
- García-Rodríguez, A.I., B.W. Bowen, D. Domning, A.A. Mignucci-Giannoni, M. Marmontel, R.A. Montoya-Ospina, B. Morales-Vela, M. Rudin, R.K. Bonde, and P.M. McGuire. 1998. Phylogeography of the West Indian Manatee (*Trichechus manatus*): How many populations and how many taxa? *Molecular Ecology* 7:1737–1749. <https://doi.org/10.1046/j.1365-294x.1998.00430.x>
- Gargominy, O., S. Terceirie, C. Régnier, T. Ramage, P. Dupont, P. Daszkiewicz, and L. Poncet. 2022. TAXREF, référentiel taxonomique pour la France: Méthodologie, mise en œuvre et diffusion. Rapport PatriNat (OFB-CNRS-MNHN), Muséum National d’Histoire Naturelle, Paris, France. 47 pp.
- Gill, F., D. Donsker, and P. Rasmussen. 2023. IOC World Bird List (v13.2). Available online at <https://www.worldbirdnames.org/new/>.
- Gómez-Carrasco, G., J.M. Leshner-Gordillo, L.D. Olivera-Gómez, R.K. Bonde, S. Arriaga-Weiss, R. Hernández-Martínez, G. Castañón-Nájera, D. Jiménez-Domínguez, A. Romo-López, and A. Delgado-Estrella. 2018. Genetic diversity and structure from Antillean Manatee (*Trichechus manatus manatus*) in the Southern Gulf of Mexico: Comparison between connected and isolated populations. *Tropical Conservation Science* 11:1940082918795560. <https://doi.org/10.1177/1940082918795560>
- Goode, G.B. 1884. The Fisheries and Fishery Industries of the United States. Section I: Natural History of Useful Aquatic Animals. United States Commission of Fish and Fisheries, Washington DC, USA. 787 pp. <https://doi.org/10.5962/bhl.title.33056>
- Gunter, G. 1941. Occurrence of the manatee in the United States, with records from Texas. *Journal of Mammalogy* 22(1):60–64. <https://doi.org/10.2307/1374684>
- Harlan, R. 1824. On a species of lamantin (*Manatus latirostris* n.s.) resembling the *Manatus senegalensis* (Cuvier) inhabiting the east coast of Florida. *Journal Academy Natural Sciences Philadelphia* 3:390–394.
- Hatt, R. 1934. A manatee collected by the American Museum Congo Expedition, with observations of recent manatees. *Bulletin of the American Museum of Natural History* 66:533–566.
- Hunter, M.E., N.E. Auil-Gomez, K.P. Tucker, R.K. Bonde, J. Powell, and P.M. McGuire. 2010. Low genetic variation and evidence of limited dispersal in the regionally important Belize Manatee. *Animal Conservation* 13(6):592–602. <https://doi.org/10.1111/j.1469-1795.2010.00383.x>
- Husar, S.L. 1978. *Trichechus manatus*. *Mammalian Species* 93:1–5.

- International Commission on Zoological Nomenclature (ICZN). 1999. International Code of Zoological Nomenclature. The International Trust for Zoological Nomenclature. Available online at <https://www.iczn.org/the-code/the-code-online/>.
- Irving W. 1828. A History of the Life and Voyages of Christopher Columbus, Volume I. John Murray, London, UK. 473 pp.
- Lima, C.S., R.F. Magalhães, and F.R. Santos. 2021. Conservation issues using discordant taxonomic and evolutionary units: A case study of the American Manatee (*Trichechus manatus*, Sirenia). *Wildlife Research* 48(5):385-392. <https://doi.org/10.1071/WR20197>
- Linares, O. 1998. Mamíferos de Venezuela. Editorial Sociedad Conservacionista Audubon de Venezuela, Caracas, Venezuela, 691 pp.
- Link, H.F. 1795. Beytrage zur Naturgeschichte... Zweytes Stuck. K.C. Stiller, Rostock and Leipzig, Germany. 126 pp.
- Linnæus, C. 1758. Systema naturæ per regna tria naturæ, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata. Lars Salvius, Holmiæ, Sweden. 824 pp.
- Luna, F.O. 2001. Distribuição, status de conservação e aspectos tradicionais do Peixe-boi Marinho (*Trichechus manatus manatus*) no litoral norte do Brasil. Recife. M.Sc. Thesis. Universidade Federal de Pernambuco, Recife, Brazil. 122 pp.
- Luna, F.O., D.C. Balensiefer, A.B. Fragoso, A. Stephano, and F.L.N. Attademo. 2018. *Trichechus manatus* Linnaeus, 1758. Pp. 103–109, In V. Silva, F. Rosas, D. Sousa, R. Amaral, A. Catanhede, I. Reis, F. Attademo, and F. Luna (Eds.). Livro Vermelho da Fauna Brasileira Ameaçada de Extinção: Volume II– Mamíferos. Instituto Chico Mendes de Conservação da Biodiversidade. ICMBio/MMA, Brasília, Brazil. 622 pp.
- Marinho, L.C., and A.V. Scatigna. 2022. A good practice: Why we should suggest vernacular names for new plant species. *Bionomina* 31(1):108–114. <https://doi.org/10.11646/bionomina.31.1.7>
- Martínez-Prieto, H.N. 2018. Códigos lingüísticos de la Chiba Borikua. Biblio Services, San Juan, PR, USA. 152 pp.
- Mártir de Anglería, P. 1516 [1989 reprint]. Décadas del Nuevo Mundo (Crónicas y Memorias). Ediciones Polifemo, Madrid, Spain. 610 pp.
- Mass, A.M., D.K. Odell, D.R. Ketten, and A.V. Supin. 1997. Ganglion-layer topography and retinal resolution of the Caribbean Manatee, *Trichechus manatus latirostris*. *Doklady Biological Sciences* 355:427–430. <https://doi.org/10.1002/ar.21470>
- Melillo-Sweeting, K., J.P. Reid, L. Gittens, N. Adimey, and J.Z. Dillet. 2011. Observations and relocation of a West Indian Manatee (*Trichechus manatus*) off Bimini, The Bahamas. *Aquatic Mammals* 37(4):502–505. <https://doi.org/10.1578/AM.37.4.2011.502>
- Mignucci-Giannoni, A.A. 1984. Hacia una nomenclatura más racional y descriptiva de los cetáceos: Un análisis etimológico. Resúmenes de la Primera Reunión de Trabajo de Expertos en Mamíferos Acuáticos de America del Sur, 25–29 de Junio de 1984, Buenos Aires, Argentina. Available upon request from the first author.
- Miner-Solá, E. 2002. Diccionario Taíno Ilustrado. Ediciones Servilibros, Asunción, Paraguay. 144 pp.
- Montoya-Ospina, R.A., D. Caicedo-Herrera, S.L. Millán-Sánchez, A.A. Mignucci-Giannoni, and L.W. Lefebvre. 2001. Status and distribution of the West Indian Manatee, *Trichechus manatus manatus*, in Colombia. *Biological Conservation* 102(1):117–129. [https://doi.org/10.1016/S0006-3207\(00\)00062-8](https://doi.org/10.1016/S0006-3207(00)00062-8)
- Olivera-Gómez, L.D., D. Jiménez-Domínguez, B. Morales-Vela, and J.L. García-Herrera. 2022. Distribución espacial del manatí en la planicie costera del sur del Golfo de México. *Ecosistemas y Recursos Agropecuarios* 9(2):1–11. <https://doi.org/10.19136/era.a9n2.3144>

- Page, L.M., K.E. Bemis, T.E. Dowling, H.S. Espinosa-Pérez, L.T. Findley, C.R. Gilbert, K.E. Hartel, R.N. Lea, N.E. Mandrak, M.A. Neighbors, J.J. Schmitter-Soto, and H.J. Walker. 2023. Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 8th Edition. American Fisheries Society Special Publication 37. Bethesda, MD, USA. 435 pp.
- Robertson, D.R., and K.L. Cramer. 2014. Defining and dividing the Greater Caribbean: Insight from the biogeography of shorefishes. *PlosOne* 9(7):e102918. <https://doi.org/10.1371/journal.pone.0102918>
- Robles Herrejón, J.C., B. Morales-Vela, A. Ortega-Argueta, C. Pozo, and L.D. Olivera-Gómez. 2020. Management effectiveness in marine protected areas for conservation of Antillean Manatees on the eastern coast of the Yucatan Peninsula, Mexico. *Aquatic Conservation: Marine and Freshwater Ecosystems* 30(6):1182–1193. <https://doi.org/10.1002/aqc.3323>
- Rodas-Trejo, J., E.I. Romero-Berny, and A. Estrada. 2020. Distribution and conservation of the West Indian Manatee (*Trichechus manatus manatus*) in the Catazajá wetlands of northeast Chiapas, Mexico. *Tropical Conservation Science* 1(4):321–333. <https://doi.org/10.1177/194008290800100403>
- Royero, R. 1995. Noticias históricas sobre el manatí. Pp. 109–132, *In* FUDECI (Ed.). Delfines y Otros Mamíferos de Venezuela. Una Política para su Conservación, Memorias del Simposio Internacional “Delfines y Otros Mamíferos Acuáticos de Venezuela: Una Política para su Conservación”. FUDECI-PROFAUNA, Caracas, Venezuela. 197 pp.
- Sarasa, M., S. Alasaad, and J.M. Pérez. 2012. Common names of species, the curious case of *Capra pyrenaica*, and the concomitant steps towards the “wild-to-domestic” transformation of a flagship species and its vernacular names. *Biodiversity Conservation* 21:1–12. <https://doi.org/10.1007/s10531-011-0172-3>
- Savouré-Soubelet, A., S. Aulagnier, P. Haffner, F. Moutou, O. Van Canneyt, J.-B. Charassin, and V. Ridoux. 2016. Atlas des Mammifères Sauvages de France. Volume 1: Mammifères Marins. Muséum National d’Histoire Naturelle, Paris; IRD, Marseille, 480 p. Patrimoines naturels 74.
- Self-Sullivan C, Mignucci-Giannoni AA. 2012. West Indian manatees (*Trichechus manatus*) in the Wider Caribbean Region. Pp. 36–46, *In* E. Hines, J. Reynolds, L. Aragonés, A.A. Mignucci Giannoni, and M. Marmontel (Eds.). Sirenian Conservation: Issues and Strategies in Developing Countries. University Press of Florida, Gainesville, FL, USA. 340 pp.
- Shakespeare, W. 1597. An Excellent Conceited Tragedie of Romeo and Juliet. John Danter. London, UK.
- Silva, V.M.F., G. Shepard, and N.A.S. Carmo. 2017. Os mamíferos aquáticos: Lendas, usos, e interações com as populações humanas na Amazônia brasileira. Pp. 193–226, *In* G. Marchand and F.V. Velden (Eds.). Olhares Cruzados Sobre as Relações Entre Seres Humanos e Animais Silvestres na Amazônia (Brasil, Guiana Francesa). Editora da Universidade Federal do Amazonas, Manaus, Brazil. 320 pp.
- Society for Marine Mammalogy (SMM) Committee on Taxonomy. 2023. List of marine mammal species and subspecies. Available online at <https://marinemammalscience.org/science-and-publications/list-marine-mammal-species-subspecies/>. Accessed 27 November 2023.
- Spalding, M.D., H.E. Fox, G.R. Allen, N. Davidson, Z.A. Ferdaña, M. Finlayson, B.S. Halpern, M.A. Jorge, et al. 2007. Marine ecoregions of the World: A bioregionalization of coastal and shelf Areas. *BioScience* 57:573–583. <https://doi.org/10.1641/B570707>

- Thomas, O. 1911. The mammals of the Tenth Edition of Linnaeus; An attempt to fix the types of the genera and the exact bases and localities of the species. *Proceedings of the Zoological Society of London* 81(1):120–158. <https://doi.org/10.1111/j.1469-7998.1911.tb06995.x>
- True, F.W. 1884. The sirenians or sea-cows. Pp. 114–136, *In* G.B. Goode (Ed.). *The Fisheries and Fishery Industries of the United States, Section I: Natural History of Useful Aquatic Animals*. United States Commission of Fish and Fisheries, Washington, DC, USA. 787 pp.
- UICN France, Muséum MNHN, GEPOG, Kwata, Biotope, Hydreco, and OSL. 2017. *La liste rouge des espèces menacées en France: Faune vertébrée de Guyane*. Paris, France. 36 pp.
- United Nations Environmental Programme (UNEP). 1982. *Development and environment in the Wider Caribbean Region: A synthesis*. UNEP Regional Seas Reports and Studies, No. 14. Nairobi, Kenya. 47 pp.
- Vianna, J.A., R.K. Bonde, S. Caballero, J.P. Giraldo, R.P. Lima, A. Clark, M. Marmontel, B. Morales-Vela, et al. 2006. Phylogeography, phylogeny, and hybridization in trichechid sirenians: Implications for manatee conservation. *Molecular Ecology* 15:433–447. <https://doi.org/10.1111/j.1365-294X.2005.02771.x>
- Wikipedia. 2023. West Indian Manatee. Available online at https://en.wikipedia.org/wiki/West_Indian_manatee. Accessed 7 November 2023.
- Wilson, D.E. 2000. *Common Names of Mammals of the World*. Smithsonian Institution Press, Washington, DC, USA. 240 pp.