

Updated systematic inventory of the non-marine (land/ terrestrial) molluscs occurring in the ABC Islands (Aruba, Bonaire and Curaçao), insular territory located in the Dutch Southeast Caribbean facing to the Western coast of Venezuela

Inventário sistemático atualizado dos moluscos não marinhos (terricolas) ocorrentes nas ilhas ABC (Aruba, Bonaire e Curaçao), território insular localizado no Caribe Sudeste Holandês frente a costa Ocidental da Venezuela

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Aisur Ignacio Agudo-Padrón

Graduado em Geografia pela Universidade do Estado de Santa Catarina/ UDESC. Instituição: Projeto “Avulsos Malacológicos – Projeto AM”. Endereço: P.O. Box 22008, AC Dias Velho, Jardim Atlântico, Florianópolis, CEP 88095-971, Santa Catarina - SC, Brasil.

E-mail: ignacioagudo@gmail.com

ABSTRACT

Introduction: Once again, simultaneously with the malacological studies carried about the country of Venezuela (*Agudo-Padrón 2023 a-b*) and the immediate neighboring islands of Trinidad & Tobago (*Agudo-Padrón 2023 c*), since 2014 the “Projeto AM” (Brazil) has carried parallel out taxonomic, bioecological and conservation research of the non-marine (land/ terrestrial) molluscs present in the neighbor insular set territory artificially denominated “ABC” (Aruba, Bonaire and Curaçao islands). To date, the aspects of the natural history of this geographic region, equally located in the Northern sector of South America, although in the West sector of the Dutch Southeast Caribbean facing to Venezuela mainland, have been regularly studied. **Objective:** Substantial updating of this knowledge through an exhaustive review of the regional malacological literature of historical and recent nature available. **Methodology:** Between 2014 and the present, a sequential review of the species occasionally referred to in the regional literature was carried out, examined from the perspective of the current taxonomy in force. **Results and conclusions:** Verification and determination of fifty-three (53) valid referred nominal taxons, including 15 subspecies & 38 species of land/ terrestrial gastropods, taxonomically grouped into seventeen (17) families and thirty (30) genera.

Keywords: Land/ terrestrial malacofauna, Gastropods, Neritimorpha, Caenogastropoda, Heterobranchia, Snails.

RESUMO

Introdução: Mais uma vez, simultaneamente a los estudos malacológicos realizados acerca do país da Venezuela (*Agudo-Padrón 2023 a-b*) e das ilhas imediato vizinhas de Trinidad & Tobago (*Agudo-Padrón 2023 c*), desde o ano de 2014 o “Projeto AM” (Brasil) realiza paralelamente pesquisas taxonômicas, bioecológicas y de conservação acerca dos moluscos não marinhos (terrestres) presentes no território vizinho insular conjunto artificialmente denominado “ABC” (ilhas de Aruba, Bonaire e Curaçao). Até à data, ditos aspectos da história natural dessa região geográfica, igualmente localizada no setor Norte da América do Sul, embora no setor Oeste do Sudeste Caribenho Holandês voltado para o continente Venezuelano, tem sido regularmente

estudados. **Objetivo:** Atualização substancial desse conhecimento através da revisão exaustiva da literatura malacológica regional de cunho histórico, e recente, disponível. **Metodología:** Entre os anos de 2014 e o presente uma secuencial revisão das espécies pontualmente referidas na literatura regional foi realizada, examinada sob a óptica da taxonomia actual vigente. **Resultados e conclusões:** Verificação e determinação de cinquenta e três (53) táxons nominais válidos referidos, incluindo 15 subespécies e 38 espécies de gastrópodes terrícolas, agrupados taxonomicamente em dezessete (17) famílias e trinta (30) gêneros.

Palavras-chave: Malacofauna terrícola, Gastrópodes, Neritimorpha, Caenogastropoda, Heterobranchia, Caracóis.

1 INTRODUCTION

Located between the tropical coordinates 12.1° to 12.6°N & 68.2° & 70.1°W (or ... 12°10'00"N & 69°00'00"W) and formed by main islands and other much smaller ones (Klein Curaçao & Klein Bonaire, respectively), the "ABC Islands" are a group of islands belonging to the Kingdom of the Netherlands, positioned in the Southern part of the denominated "Antillean Arc". From West to East they are made up of Aruba, Curacao and Bonaire (in that natural geographical order ~ see Figs. 1 & 1.a), from whose initials the artificial acronym "ABC" comes (Aruba, Bonaire and Curaçao – term this last adopted for convenience), being the Westernmost of the Lesser Antilles, located in the Northern region/ sector of South America facing the coast of the Falcón State of Venezuela, called the "Group of Islands of 'Sotavento' (Leeward)", a name that includes the insular territories of the country of Venezuela close to their coast, above the South American continental shelf (Agudo-Padrón 2023 a: 2382)*.

**The islands of Trinidad & Tobago, to the East of the Caribbean Sea basin (see Agudo-Padrón 2023 c), in turn belong to the "Group of so-called 'Barlovento' (Windward) Islands".*

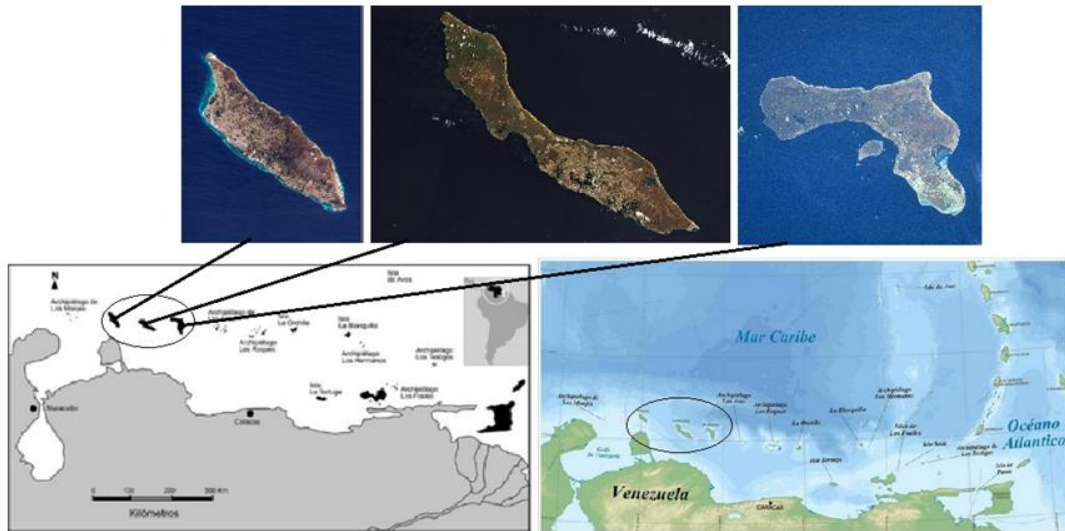


Figure 1.- View (upper satellite images) of the spatial localization of the ABC insular territories facing to Venezuelan mainland country. Left: Aruba island; Center: Curaçao island; Right: Bonaire island. Credit images: GOOGLE, Creative Commons.



Figure 1 - A.- Additional view of the spatial and geopolitical localization of the ABC insular territories (Aruba, Curaçao and Bonaire) facing to Venezuelan mainland country. Credit images: GOOGLE, Creative Commons.

The terrain of the islands is a mixture of mountains and plains, characterized by having a dry tropical climate and a predominantly semi-arid environment, with tropical dry forests (xeric scrub). For a convenient and complete description, see the contribution of *Hovestadt & Leeuwen (2017: 2-4)*. A additional review of terrestrial ecoregional mappings (ecoregions) corresponding to Venezuela, in the Northern sector of South America, according to the proposal appresented by *Olson et al. (2001)*, show that the neighboring insular set territory artificially denominated “ABC” (Aruba, Bonaire and Curaçao islands) is under the relative influence of the Venezuelan ecoregions classified with the sections numbered “606” (located opposite the Paraguaná Peninsula (Venezuelan “Falcón

State”), nominated "*Paraguana xeric scrub*") and “536” (not yet Venezuelan “Falcón State”, nominated "*Lara-Falcón dry forests*")*.

****The find of the land “subfossil” gastropod species ANNULARIIDAE Tudora paranaguensis Hovestadt, 2016 in the region of the "Paranaguá Peninsula" (Hovestadt 2016: 151; Hovestadt & Leeuwen 2017: 30) – first record of the genus Tudora from the mainland of South America – reinforces our previous assessment.***

Simultaneously with the malacological studies carried about the country of Venezuela (Agudo-Padrón 2023 a-b) and the immediate neighboring islands of Trinidad & Tobago (Agudo-Padrón 2023 c), since the year of 2014 the “Projeto AM” (Brazil) has carried parallel out taxonomic, bioecological and conservation research compilation about the non-marine molluscs (land/terrestrial) molluscs present in the neighbor insular set territory artificially denominated “ABC” (Aruba, Bonaire and Curaçao islands). In this way, the objective of the present complementary modest and unpretentious contribution is to substantially update the available knowledge about this specific and diverse regional malacofauna, through of the updated review and consequent systematic organization of inventory relative to their species registered in the available literature, paving the way for possible future comprehensive researches in the ambit.

The scope of the present work is justified by the need complete the review and update of the taxonomic and biogeographical regional knowledge currently available about non-marine malacofauna occurring in the Northern mainland sector of South America and immediate adjacent Caribbean insular countries (Agudo-Padrón 2023 a-b-c), especially in this case the important information contained in the relevant contribution by Hovestadt & Leeuwen (2017), sequentially referred to throughout this text.

2 BACKGROUND

A specific registered total of “thirty-two” (32) available sources/ contributions”, involving a chronological period of 161 years (between 1861 and 2022), today constitute the minimum and basic bibliographic bank (fundamental collection) for the successful undertaking of any study and/or in-depth research on non-marine molluscs (land/terrestrial) that occur in the Dutch Caribbean insular “ABC” territory, as follows:

Hovestadt & Leeuwen (2017: 32-37), properly checked/ reviewed in the following additional material available in the web <
https://www.dutchcaribbeanspecies.org/linnaeus_ng/app/views/literature2/reference.php?id=5393
>, provide a valuable referential compilation including the following specific “thirty-one (31) bibliographical contributions” of immediate interest to the fundamental knowledge of the regional

mollusc fauna: ... *Bland* 1861, 1866, 1868, 1871-1873; *Crosse* 1872; *Crosse & Bland* 1873; *Gibbons* 1879; *Smith* 1898; *Vernhout* 1914; *Baker* 1924; *Pilsbry* 1924; *Bentham Jutting* 1925; *Hummelinck* 1940 a-b; *Haas* 1960, 1962; *Venmans* 1963; *Gould* 1971; *Breure* 1974; *Vries* 1975; *Breure* 1975; *Hovestadt & Boer* 1982; *Gould* 1984; *Hovestadt* 1987; *Hummelinck* 1990; *Anderson & Sinn* 2000; *Watters* 2006; *Buurt & Debrot* 2012; *Harasewych* 2015; *Buurt* 2016; *Hovestadt* 2016.

The regional malacological literature still has the following additional “six (6) relevant published sources”, not contained in the previously examined/ commented contribution: ... *Parkinson et al.* 1987; *Abbott* 1989; *Berschauer & Ros* 2014; *Alvarez-Abreu et al.* 2021 (64-Fig. 9 - Map); *Salvador et al.* 2021; *Leeuwen & Hovestadt* 2022.

Still, a important and detailed chronological analysis about the works (historical studies) that preceded the knowledge of the regional land malacofauna from the ABC islands is found available in the contribution of *Hovestadt & van Leeuwen* (2017: 4-5).

Additionally, it is also worth highlighting the "peripheral" and general minimum information contained in the next two (2) classic malacological monograph/ catalogs:

– *Parkinson et al.* (1987: 16 = *Cerion uva* (Linnaeus) ~ accepted species – of “Curaçao”; 124-125, Plate 8 - 7 = *Cerion uva* (Linnaeus, 1758) ~ accepted species – of “Netherlands Antilles, Curaçao (on rocks and shrubs)”.

– *Abbott* (1989: 70 = Family CERIONIDAE ~ One variable species, *uva*, occurs in the Dutch West Indies (ABC Islands); 73 = *Cerion uva* (Linnaeus, 1858) ~ accepted species – of “Aruba, Curaçao and Bonaire”, lower Caribbean & *Cerion uva* subsp. *bonairensis* Baker, 1914 ~ accepted subspecies – of Bonaire island, Duch West Indies (ABC Islands).

The interested researcher or consultant will, eventually, be able to find a few other sources of interest included in the “bibliographical references” contained in the aforementioned basal contributions.

Finally, works comparatives to the present contribution, concerning the specific inventory of regional land/ terrestrial & limnic/ freshwater molluscs, were previously carried by us out for the immediate neighbor mainland country of Venezuela, located in the North sector of South America facing the Southeastern Caribbean (*Agudo-Padrón* 2023 a-b) and the Windward islands of Trinidad & Tobago (*Agudo-Padrón* 2023 c).

3 RESULTS

The following is an updated taxonomic list (inventory) of fifty-three (53) valid referred nominal taxons, including 15 subspecies & 38 species of land/ terrestrial gastropods, taxonomically grouped into seventeen (17) families and thirty (30) genera that have been verified/ registered so far

in the insular territory of the “ABC” Islands (Table 1), with each of the species and subspecies referred to is accompanied by its corresponding synonymy (when relevantly any), established through of the global platform "*MolluscaBase*" < <https://molluscabase.org/index.php> >.

The functional organization (structuring/ arrangement) of the presented listing follows, mainly, the proposals by *Agudo-Padrón* (2023 a-b-c).

Abbreviations:

- (1) Introduced species, exotic & invasive
- (2) Endemic species of Bonaire island
- (3) Endemic species of Aruba island
- (4) Endemic species of Curaçao island

SYSTEMATIC

GASTROPODA Cuvier, 1795

SUBCLASS NERITIMORPHA Golikov & Starobogatov, 1975

Family HELICINIDAE Férussac, 1822 (– 4 species, 3 genera)

Helicina dysoni Pfeiffer, 1849* ~ accepted species

**Salvador et al. (2021: 65 ... Bonaire, Curaçao)*

Helicina fasciata (Lamarck, 1822) ~ accepted species

Lucidella lirata (Pfeiffer, 1847) ~ accepted species

Stoastomops walkeri Baker, 1924 ~ accepted species (2)

SUBCLASS CAENOGASTROPODA Cox, 1960

Family ANNULARIIDAE Henderson & Bartsch, 1920 (– 7 subspecies, 5 species, 3 genera)

Bonairea maculata (Baker, 1924) ~ accepted species (2)

Cistulops raveni arubana Baker, 1924 ~ accepted subspecies (3)

Cistulops raveni raveni (Crosse, 1872) ~ accepted subspecies (4)

Tudora aurantia (Wood, 1828)* ~ accepted species (2)

* *Synonymy = Tudora aurantia wassauensis Baker, 1924*

Tudora aurantia aurantia (Wood, 1828) ~ accepted subspecies (2)

Tudora fossor fossor Baker, 1924 ~ accepted subspecies

Tudora megacheilos (Potiez & Michaud, 1838)* ~ accepted species (4)

**Synonymies = Tudora fossor arubana Baker, 1924; Tudora fossor canashitensis Baker, 1924; Tudora fossor djerimensis Baker, 1924; Tudora fossor westpuntensis Baker, 1924; Tudora megacheilos kabrietensis Baker, 1924; Tudora megacheilos megacheilos (Potiez & Michaud, 1838); Tudora megacheilos rondklipensis Baker, 1924; Tudora megacheilos spreitensis Baker, 1924*

Tudora rupis Baker, 1924* ~ accepted species (4)

**Synonymies = Tudora rupis newportensis Baker, 1924; Tudora rupis rupis Baker, 1924*

Tudora rupis grandiensis Baker, 1924* ~ accepted species

**Synonymy = Tudora muskusi grandiensis Baker, 1924*

Tudora rupis hatoensis Hummelinck, 1940* ~ accepted species (4)

***Synonymy = Tudora muskusi hatoensis Hummelinck, 1940**

Tudora rupis muskusi Baker, 1924* ~ accepted species (4)

***Synonymies = Tudora muskusi Baker, 1924; Tudora muskusi muskusi Baker, 1924**

Tudora pilsbryi Baker, 1924 ~ accepted species (4)

SUBCLASS HETEROBRANCHIA Burmeister, 1837

Family ACHATINIDAE Swainson, 1840 (– 9 species, 6 genera)

Allopeas gracile (Hutton, 1834) ~ accepted species (1)

Allopeas micra (d'Orbigny, 1835) ~ accepted species

Leptinaria unilamellata (Potiez & Michaud, 1835)* ~ accepted species

***Synonymy = Leptinaria lamellata (d'Orbigny, 1838)**

Lissachatina fulica (Férussac, 1821) ~ accepted species (1)

Neosubulina gloynii (Gibbons, 1879) ~ accepted species (4)

Neosubulina harterti Smith, 1898 ~ accepted species (2)

Neosubulina scopulorum Baker, 1924 ~ accepted species (4)

Opeas hannense (Rang, 1831)* ~ accepted species (1)

***Synonymy = Opeas pumilum (Pfeiffer, 1840)**

Subulina octona (Bruguière, 1789) ~ accepted species (1)

Family FERUSSACIIDAE Bourguignat, 1883 (– 2 species, 2 genera)

Geostilbia aperta (Swainson, 1840)* ~ accepted species

***Synonymy = Cecilioides gundlachi (Pfeiffer, 1850)**

Karolus consobrinus (d'Orbigny, 1841) ~ accepted species

Family PUPILLIDAE Turton, 1831 (– 1 species, 1 genus)

Pupoides nitidulus (Pfeiffer, 1839)* ~ accepted species

***Synonymy = Pupoides albilabris (Adams, 1841)**

Family STREPTAXIDAE Gray, 1860 (– 2 species, 2 genera)

Gulella bicolor (Hutton, 1834)* ~ accepted species

***Synonymy = Huttonella bicolor (Hutton, 1834)**

Tomostele musaecola (Morelet, 1860)* ~ accepted species (1)

***Synonymy = Streptostele musaecola (Morelet, 1860)**

Family SUCCINEIDAE Beck, 1837 (– 2 species, 1 genus)

Succinea barbadensis Guilding, 1838 ~ accepted species

Succinea gyrata Gibbons, 1879 ~ accepted species

Family SAGDIDAE Pilsbry, 1895 (– 1 species, 1 genus)

Hojeda vanattai (Baker, 1924) ~ accepted species (3)

Family THYSANOPHORIDAE Pilsbry, 1926 (– 1 species, 1 genus)

Setidiscus crinitus (Fulton, 1917)* ~ accepted species (1)

***Synonymy = *Thysanophora crinita* (Fulton, 1917)**

Family VERTIGINIDAE Fitzinger, 1833 (– 1 subspecies, 3 species, 1 genus)

Gastrocopta barbadensis (Pfeiffer, 1853) – accepted species

Gastrocopta curacaoana Pilsbry, 1924 ~ accepted species

Gastrocopta octonaria Pilsbry, 1924 ~ accepted species

Gastrocopta servilis riisei (Pfeiffer, 1852) ~ accepted subspecies

Family ORTHALICIDAE von Martens, 1860 (– 1 species, 1 genus)

Orthalicus zebra (Müller, 1774)* ~ accepted species

***Synonymy = *Orthalicus maracaibensis* (Pfeiffer, 1856) --- Salvador et al. (2021: 74 ... Aruba)**

Family BULIMULIDAE Tryon, 1867 (– 2 species, 2 genera)

Bulimulus guadalupensis (Bruguière, 1789) ~ accepted species (1)

Mesembrinus elongatus (Röding, 1789)* ~ accepted species

***Synonymy = *Drymaeus elongatus* (Röding, 1798)**

Family CERIONIDAE Pilsbry, 1901 (– 3 subspecies, 1 genus)

Cerion uva bonairensis Baker, 1924 ~ accepted subspecies (2)

Cerion uva knipensis Baker, 1924 ~ accepted subspecies (4)

Cerion uva uva (Linnaeus, 1758)* ~ accepted subspecies (4)

***Synonymy = *Cerion uva diablensis* Baker, 1924**

Family UROCOPTIDAE Pilsbry, 1898 (1868) (– 4 subspecies, 2 species, 2 genera)

Brachypodella gibbonsi Baker, 1924 ~ accepted species (4)

Brachypodella raveni (Crosse, 1872) ~ accepted species (4)

Brachypodella raveni arubana Baker, 1924* ~ accepted subspecies (3)

***Synonymy = *Brachypodella arubana* Baker, 1924**

Microceramus bonairensis arubanus Baker, 1924 ~ accepted subspecies (3)

Microceramus bonairensis bonairensis (Smith, 1898) ~ accepted subspecies (2)

Microceramus bonairensis curacoanus Baker, 1923 ~ accepted subspecies (4)

Family EUCONULIDAE Baker, 1928 (– 1 species, 1 genus)

Guppya molengraaffi Baker, 1924 ~ accepted species (4)

Family CAMAENIDAE Pilsbry, 1895 (– 1 species, 1 genus)

Zachrysia provisoria (Pfeiffer, 1858) ~ accepted species (1)

Family POLYGYRIDAE Pilsbry, 1895 (– 1 species, 1 genus)

Polygyra cereolus (Mühlfeldt, 1818) ~ accepted species (1)

4 DISCUSSION

An total of seventy-one (71) exclusive subspecific and specific nominal taxons (reporters only at the "generic leve" were discarded/ desconsidered) are originally referred by *Hovestadt & Leeuwen* (2017: 8-9 – Table 2), properly checked/ reviewed in the following additional material available in the web < https://www.dutchcaribbeanspecies.org/linnaeus_ng/app/views/literature2/reference.php?id=5393 >. Following the taxonomic and referential verification contained in the present contribution (disregarding "current synonymies", quotations "unfinished/ not completed" until at the taxonomic specific or subspecific level – reporters only at the "taxonomical generic leve" were discarded/ desconsidered, as well as reports of a "dubious" nature), said cipher before mentioned ended up finished being "readjusted" to fifty-three (53) nominal valid taxons.

Still It is interesting to highlight that unlike what happens with the Caribbean territories of Venezuela (*Agudo-Padrón* 2023 b) and the windward islands of Trinidad & Tobago (*Agudo-Padrón* 2023 c), the limnic/ freshwater molluscs of the ABC islands meet until now poorly studied, with scarce specific records available in the literature (*Verndhout* 1914, *Baker* 1924, *Pointier* 2015), including (by example) the species COCHLIOPIDAE *Potamopyrgus parvulus* (Guilding, 1828) ~ synonymy of *Pyrgophorus parvulus* (Guilding, 1828), and PLANORBIDAE *Planorbis pallidus* C.B. Adams, 1846 ~ synonymy of *Biomphalaria pallida* (C.B. Adams, 1846).

5 CONCLUSIONS

A total of fifty-three (53) valid referred nominal land/ terrestrial mollusc taxons (Table 1), including 15 subspecies and 38 forms/ species, taxonomically grouped into seventeen (17) families and thirty (30) genera, inedit inventory built since the year 2014 based on literature records, strictly compared with the "MolluscaBase" platform < <https://www.molluscabase.org/index.php> >, mainly, have been checked for the insular Dutch territory of ABC Islands (Aruba, Bonaire & Curaçao), North sector of South American facing the Southeast Caribbean, being the gastropods Annulariidae, Achatinidae and Urocoptidae, (numerically in that order) the families best represented in this country: ... Achatinidae (9 species, 6 genera), Annulariidae (7 subspecies, 5 species, 3 genera), Bulimulidae (2 species, 2 genera), Camaenidae (1 species, 1 genus), Cerionidae (3 subspecies, 1 genus), Euconulidae (1 species, 1 genera), Ferussaciidae (2 species, 2 genera), Helicinidae (4 species, 3 genera), Orthalicidae (1 species, 1 genus), Polygyridae (1 species, 1 genus),

Pupillidae (1 species, 1 genus), Sagdidae (1 species, 1 genus), Streptaxidae (2 species, 2 genera), Succineidae (2 species, 1 genera), Thysanophoridae (1 species, 1 genus), Urocoptidae (4 subspecies, 2 species, 2 genera), Vertiginidae (1 subspecies, 3 species, 1 genus).

In turn, of the above referred species at least nine (9) correspond to introduced, exotic and invasive forms: ... Achatinidae (4 species), Bulimulidae (1 species), Camaenidae (1 species), Polygyridae (1 species), Streptaxidae (1 species), Thysanophoridae (1 species). On the other hand, a total of twenty-four (24) species are endemic to this insular region: ... four (4) of “Aruba”, seven (7) of “Bonaire” & thirteen (13) of “Curaçao” (... see the “taxon/ species checklist” of this contribution !).

Completing the relation of the present report, fourteen (14) of the land/ terrestrial taxons thus registered (equivalent to 26% of the total) occur simultaneously in the neighboring mainland & insular territory of Venezuela (the 14 taxa thus accounted for), and twelve (12) from them in the windward islands of Trinidad (10 taxa) & Tobago (2 taxa) (see Table 1), everything verified through the contributions/ reports of *Hovestadt & Leeuwen* (2017) and *Agudo-Padrón* (2023 a, c).

As for the limitations encountered during the research, the difficulty of fully obtaining some of the analyzed historical bibliographic sources was faced (and overcome).

One more time we suggest that for the development and continuity of future works within the scope of the present contribution, na "assisted review" of cryptic bibliography and malacological material deposited in scientific biological collections* available is necessarily carried out (see, for an example, the Venezuelan contribution of *Agudo-Padrón & Vera-Caripe* 2022), aiming to incorporate additional informations in the regional non-marine inventories already consolidated (*Agudo-Padrón* 2023 a-b-c, *this contribution*) those "eventual species" occurring in this physiographic and bioecological insular Dutch territory that, however, are not included in the published technical literature formally examined.

****Work already realized "in advancement" for the ABC Islands, apresented in the contribution by Hovestadt & Leeuwen (2017: 4-5, 9-10).***

As final consideration, the scope of the present work, as well as the previous related contributions (*Agudo-Padrón* 2023 a-b-c) was justified by the need to review, update and to complete the taxonomic and biogeographical knowledge currently available about non-marine malacofauna occurring in the mainland Northern sector of South America and immediate adjacent Caribbean insular countries (goal fully achieved), especially in this last case with the analysis of the relevant contribution by *Hovestadt & Leeuwen* (2017), referred to throughout this text, thus aiming to contribute to the better knowledge of this important segment of South American faunal biodiversity.

ADDENDA

The following additional referencial historical information, relevant to the neighboring mainland of “Venezuela” (Agudo-Padrón 2023 a-b), the leeward Dutch insular territory of “ABC” (*the present contribution*) and the windward insular territory of “Trinidad & Tobago” (Agudo-Padrón 2023 c), inconveniently escaped to our initial attention, whereby opportunely incorporated to continuation:

– Salvador *et al.* (2021: 65 = *Helicina dysoni* Pfeiffer, 1849 ~ accepted species – of “Trinidad Island”, with known distribution in “Bonaire, Curaçao, Trinidad & Venezuela”; 65 = *Aperostoma translucidum* (Sowerby, 1843) ~ accepted species – of “Trinidad Island”, with known distribution in “Trinidad & Venezuela”; 67 = *Leptinaria lamellata* (Potiez & Michaud, 1838) ~ synonymy of *Leptinaria unilamellata* (d’Orbigny, 1838) – of “Trinidad Island”; 67 = *Subulina octona* (Bruguière, 1792) ~ accepted species – of “Trinidad Island”; 68 = *Brachypodella trinitaria* (Pfeiffer, 1861) ~ accepted species – of “Trinidad Island”, with known distribution in “Trinidad”; 68 = *Omalonyx matheroni* (Potiez & Michaud, 1838) ~ synonymy of *Omalonyx unguis* (d’Orbigny, 1836) – of “Trinidad Island”, with known distribution in “Trinidad”; 69 = *Plekocheilus aurissciuri* Guppy, 1866 ~ accepted species – of “Trinidad Island”, with known distribution in “Trinidad & Venezuela”; 69 = *Plekocheilus distortus* (Bruguière, 1789) ~ accepted species – of “Venezuela”, with known distribution in “Venezuela”; 69 = *Plekocheilus glabra* (Gmelin, 1791) ~ synonymy of *Plekocheilus glaber* (Gmelin, 1791) – of “Venezuela”, with known distribution in “Trinidad & Venezuela”; 69 = *Plekocheilus taylorianus* (Reeve, 1849) ~ accepted species – of “Venezuela” ??? (... “dubious report” = erroneous distribution – “does not match” !); 73 = *Drymaeus stramineus* (Guilding, 1824) ~ synonymy of *Antidrymaeus stramineus* (Guilding, 1824)* – of “Trinidad Island”, with known distribution in “Trinidad”; 73 = *Drymaeus vincentinus* (Pfeiffer, 1846) ~ accepted species – of “Trinidad Island”, with known distribution in “Tobago & Trinidad”; 74 = *Orthalicus maracaibensis* (Pfeiffer, 1856) ~ synonymy of *Orthalicus zebra* (Müller, 1774) – species with known distribution in the ABC “Aruba Island” & “Venezuela”; 74 = *Orthalicus undatus* (Bruguière, 1789) ~ accepted species – of “Trinidad Island”, with known distribution in “Trinidad & Venezuela”.

***New additional record for the regional inventory of the insular territory of “Trinidad & Tobago”, bringing its number of verified taxa to “150” = 10 species BULIMULIDAE (Agudo-Padrón 2023 c: 2798).**

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****A new *Tudora* species (Gastropoda, Hypsogastropoda, Annulariidae) is described from the Península de Paraguaná, Estado de Falcón, Venezuela. In shell morphology the new species resembles *Tudora megacheilos* from Aruba and Curaçao. It can be separated by the considerably smaller apical angle and more turrriform shape of the shell. It is tentatively regarded as subfossil. This is the first record of *Tudora* from the mainland of South America**

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Table 1.- Simultaneous occurrence of land/ terrestrial molluscs in the territory of the leeward Dutch ABC islands* with respect to the neighbor Venezuela and the windward islands of Trinidad & Tobago
*Total of 53 nominal valid taxa (15 subspecies & 38 species), included in 30 genera

Localities:

ABC Islands = Aruba (1), Curaçao (2), Bonaire (3); Venezuela (4); Trinidad island (5); Tobago island (6)

	1	2	3	4	5	6							
HELICINIDAE													
<i>Helicina dysoni</i> Pfeiffer, 1849		X		X	X	X							
<i>Helicina fasciata</i> (Lamarck, 1822)		X											
<i>Lucidella lirata</i> (Pfeiffer, 1847)		X	X	X	X								
<i>Stoastomops walkeri</i> Baker, 1924			X										
ANNULARIIDAE													
<i>Bonairea maculata</i> (Baker, 1924)			X										
<i>Cistulops raveni arubana</i> Baker, 1924	X												
<i>Cistulops raveni raveni</i> (Crosse, 1872)		X											
<i>Tudora aurantia</i> (Wood, 1828)			X										
<i>Tudora aurantia aurantia</i> (Wood, 1828)			X										
<i>Tudora fossor fossor</i> Baker, 1924		X											
<i>Tudora megacheilos</i> (Potiez & Michaud, 1838)		X											
<i>Tudora rupis</i> Baker, 1924		X											
<i>Tudora rupis grandiensis</i> Baker, 1924		X											
<i>Tudora rupis hatoensis</i> Hummelinck, 1940		X											
<i>Tudora rupis muskusi</i> Baker, 1924		X											
<i>Tudora pilsbryi</i> Baker, 1924		X											
ACHATINIDAE													
<i>Allopeas gracile</i> (Hutton, 1834)		X		X	X								
<i>Allopeas micra</i> (d'Orbigny, 1835)	X	X		X	X								
<i>Leptinaria unilamellata</i> (Potiez & Michaud, 1835)		X		X	X								
<i>Lissachatina fulica</i> (Férussac, 1821)		X		X	X								
<i>Neosubulina gloynii</i> (Gibbons, 1879)		X											
<i>Neosubulina harterti</i> Smith, 1898			X										
<i>Neosubulina scopulorum</i> Baker, 1924	X												
<i>Opeas hannense</i> (Rang, 1831)		X											
<i>Subulina octona</i> (Bruguière, 1789)		X		X	X								
FERUSSACIIDAE													
<i>Geostilbia aperta</i> (Swainson, 1840)		X											
<i>Karolus consobrinus</i> (d'Orbigny, 1841)	X	X	X	X	X	X							
PUPILLIDAE													
<i>Pupoides nitidulus</i> (Pfeiffer, 1839)	X	X	X	X									
STREPTAXIDAE													
<i>Gulella bicolor</i> (Hutton, 1834)		X		X	X								
<i>Tomostele musaecola</i> (Morelet, 1860)	X			X	X								
SUCCINEIDAE													
<i>Succinea barbadensis</i> Guilding, 1838		X											
<i>Succinea gyrata</i> Gibbons, 1879		X	X										
SAGDIDAE													

<i>Hojeda vanattai</i> (Baker, 1924)	X																		
THYSANOPHORIDAE																			
<i>Setidiscus crinitus</i> (Fulton, 1917)	X	X		X															
VERTIGINIDAE																			
<i>Gastrocopta barbadensis</i> (Pfeiffer, 1853)		X		X	X														
<i>Gastrocopta curacaoana</i> Pilsbry, 1924	X	X	X	X															
<i>Gastrocopta octonaria</i> Pilsbry, 1924	X	X	X	X															
<i>Gastrocopta servilis riisei</i> (Pfeiffer, 1852)	X	X	X		X	X													
ORTHALICIDAE																			
<i>Orthalicus zebra</i> (Müller, 1774)	X			X															
BULIMULIDAE																			
<i>Bulimulus guadalupensis</i> (Bruguière, 1789)		X																	
<i>Mesembrinus elongatus</i> (Röding, 1789)	X	X	X																
CERIONIDAE																			
<i>Cerion uva bonairensis</i> Baker, 1924			X																
<i>Cerion uva knipensis</i> Baker, 1924		X																	
<i>Cerion uva uva</i> (Linnaeus, 1758)	X	X																	
UROCOPTIDAE																			
<i>Brachypodella gibbonsi</i> Baker, 1924			X																
<i>Brachypodella raveni</i> (Crosse, 1872)		X																	
<i>Brachypodella raveni arubana</i> Baker, 1924	X																		
<i>Microceramus bonairensis arubanus</i> Baker, 1924	X																		
<i>Microceramus bonairensis bonairensis</i> (Smith, 1898)			X																
<i>Microceramus bonairensis curacoanus</i> Baker, 1923		X																	
EUCONULIDAE																			
<i>Guppya molengraaffi</i> Baker, 1924		X																	
CAMAENIDAE																			
<i>Zachrysia provisorio</i> (Pfeiffer, 1858)		X																	
POLYGYRIDAE																			
<i>Polygyra cereolus</i> (Mühlfeldt, 1818)		X																	