

Preliminary Checklist of Extant and Fossil Endemic Taxa of the ABC-Islands, Leeward Antilles

by

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Synopsis

The literature on the endemic flora and fauna of the Dutch Lesser Antilles is scattered and often difficult to find. An initial compilation amounts to 163 extant terrestrial and freshwater taxa (121 nominate species and 42 subspecies) and 58 marine taxa (all nominate species) which are either restricted to one or more of the ABC islands, or which otherwise have a limited geographical distribution in the Southern Caribbean (i.e. endemic). In addition, a total of 39 endemic fossil taxa are listed.

The breakdown for extant endemic terrestrial and freshwater species and subspecies is as follows: plants (22 sp.); arachnids and insects (40 sp. + 4 ssp.); freshwater and subterranean crustaceans (25 sp. + 3 ssp.); freshwater polychaetes, flatworms, rotatoria (7 sp.); terrestrial gastropods (15 sp. + 5 ssp.); fresh-brackishwater fishes (2 sp. + 1 ssp.); reptiles (9 sp. + 3 ssp.); birds (22 ssp.); 4 mammals (1 sp. + 4 ssp.).

Marine endemism especially concerns marine gastropod mollusks, many of which show direct development or have short larval dispersive stages. Other marine taxa probably contain significant endemism as well but have not been included because of a lack of information.

Introduction

The conservation of biodiversity is one of the key goals of modern biological conservation. Within this context, the protection of elements unique to an area (i.e. endemic elements) is of particular importance. Endemism, then, can be seen as one aspect of total biodiversity, being an expression of the unique part of a region's biodiversity. Nevertheless, biodiversity and endemism are distinct phenomena and the processes allowing high biodiversity in an area, and those which result in high endemism may be totally different.

Measures of endemism are of course, minimalistic by nature (Myers et al. 2000) and provide only part of the total biodiversity picture. Thus it must be kept in mind that a great deal of the unique biodiversity present in an area is not necessarily expressed at the species or subspecies level but at the level of the localized population. This has been demonstrated recently with the alga *Lyngbia majuscula*, a widespread species which demonstrates unique and potentially very valuable biochemical properties at specific locations in Curaçao (e.g. Gerwick et al. 1994, Orjala et al. 1995a,b, Yoo and Gerwick 1995), which appear to be genetically based (Rossi et al. 1997, Sitachitta et al. 1998). This means that biodiversity expressed using the species as the

basic unit (e.g. Myers et al. 2000, Roberts et al. 2002), is also minimalistic.

Purpose and scope

As is the case with knowledge about general biodiversity (Myers et al. 2000, Roberts et al. 2002), knowledge regarding endemism is useful for setting conservation and research priorities. At present the Leeward Dutch Antilles are considered to be part of the Caribbean biodiversity hotspot (Myers et al. 2000). This provides these islands with a certain degree of global priority for both conservation and research spending.

The purpose of this exercise is to highlight the unique contribution of the Leeward Dutch Antilles (ABC islands) to the biodiversity of the greater Caribbean region. To that end, all taxa limited in geographical extent to the territory of the ABC islands, or further being found in a limited range outside the ABC islands, were considered as being endemic. More widely spread Caribbean endemics, which are numerous, were therefore not included in this listing.

The literature on the endemic flora and fauna, of the Dutch Lesser Antilles is scattered and often difficult to find. In this effort, a fairly extensive survey of literature was conducted to list the endemic taxa for the Leeward Dutch Islands. Many of the taxa listed may require a systematic revision. This could affect their species status. Thus the endemic biodiversity recorded in this preliminary list is only indicative and most certainly incomplete, but should provide a useful starting point for further study. As more and more research becomes available, the known distributional ranges for the listed taxa may change. This may affect whether or not they are to be considered endemic.

No attempt has been made to provide comprehensive literature on each species listed. One or more key references are given such that interested parties have a starting point for more thorough search of literature. Keeping these limitations in mind, the list may help in setting local research and conservation priorities, and should be of interest to both scientists and conservationists. The author welcomes all comments, corrections and updates to this working list and thanks David Meyer and John de Freitas for their comments on an initial draft.

Qualifying remarks

Aside from marine gastropod molluscs, the topic of marine endemism has barely been touched and a few comments are appropriate. In the southern Caribbean approximately 40%

of the marine gastropods are endemic to the southern Caribbean region (Diaz, 1995), while others are Caribbean endemics. Of the 723 marine gastropods known from the Leeward Dutch Islands, a preliminary overview indicates that at least 55 species have very restricted ranges within the southern Caribbean while 32 are exclusively endemic to the three islands in question.

While marine fish assemblages show broad zoogeographical differences within the region (Acero, 1985), there appears to be little to indicate elevated endemism particular to the vicinity of the ABC islands. Other marine groups such as crinoids (Meyer et al., 1978) and deep water scleractinia (Cairns, 1979), demonstrate high levels of basin-wide endemism, but apart from two southern Caribbean endemic crinoids, do not appear to have major pockets of endemism centered around the ABC islands. Several cryptic interstitial marine taxa so far only known from one of the three ABC islands have been excluded from this list based on familial or generic tendencies towards wider patterns of distribution via planktonic dispersal (eg. Por, 1983; Stock, 1989; Vonk, 1990). One exception is made in the case of an interstitial shrimp known for more than 50 years exclusively from the Leeward Dutch Islands (Holthuis, 1990).

Finally, it should be kept in mind that in contrast to extant taxa, the listing of a fossil species as endemic, particularly when it concerns planktonic marine species, does not mean that the species would necessarily have had a limited distributional range at the time it existed. The denotation of a fossil species as endemic simply indicates that fossils of the species are only known from a limited geographic range, and this may often simply be due to localized preservational factors.

Species lists

Each species name is followed by the island or country of occurrence (C = Curaçao, A = Aruba, B = Bonaire, ? = C and/or B, Ven = Venezuela, nVen = northern Venezuela, Visl = Venezuelan islands, Col = Colombia, sCar = southern Caribbean, eCar = eastern Caribbean, St.M = St. Maarten), and one or more principal source references. A question mark associated with one of the above locality symbols, raises the question of its occurrence at that locality.

Plants

Scientific name	Occurrence	Source Reference
<i>Agave arubensis</i>	A	Proosdij 2001
<i>Agave boldinghiana</i>	C, B	Proosdij 2001
<i>Agave cocui</i>	C, B, nVen	Proosdij 2001
<i>Agave rutteniae</i>	A	Proosdij 2001
<i>Agave vivipara</i>	A, B, C	Proosdij 2001
<i>Aristida arubensis</i>	A, B, C	Proosdij 2001, Stoffers 1981
<i>Chloris suringari</i>	C, B	Proosdij 2001, Stoffers 1981
<i>Cynanchum boldinghii</i>	C, A, B	Proosdij 2001
<i>Maytenus versluysii</i>	C, B	Proosdij 2001, Freitas and Rojer 2000
<i>Myrcia curassavica</i>	C, B	Proosdij 2001, Freitas and Rojer 2000
<i>Mammillaria mammillaris</i>	C, Visl, nVen	Proosdij 2001, Hoyos, 1985
<i>Melocactus curvispinus koolwijkianus</i>	A	Thomson 2002
<i>M. macracanthos</i>	C, A, B	Proosdij 2001, Thomson 2005, Antesberger 1990, 1995
<i>M. stramineus</i>	A	Thomson 2002
<i>Cereus repandus</i>	C, A, B, nVen	Proosdij 2001, Hoyos 1985
<i>Stenocereus griseus</i>	C, A, B, nVen	Proosdij 2001, Hoyos 1985
<i>Pilocereus lanuginosus</i>	C, A, B, nVen	Proosdij 2001, Hoyos 1985
<i>Pereskia guamacho</i>	C, A, B, nVen	Proosdij 2001, Hoyos 1985
<i>Opuntia wentiana</i>	C, A, B, nVen	Proosdij 2001, Hoyos 1985
<i>Paspalum curassavicus</i>	C, A, B	Proosdij 2001
<i>Paspalum bonairensis</i>	C, B	Proosdij 2001
<i>Peltophorum acutifolium</i>	C, A, Visl	Proosdij 2001, Hoyos 1985

Flatworms

Scientific name	Occurrence	Source Reference
<i>Bothrosomostoma pieti</i>	C	Marcus 1960

Annelida

Scientific name	Occurrence	Source Reference
<i>Diachaeta bonairensis</i>	B	Righi 1995
<i>Wagenaaria similis</i>	C	Brennan 1967
<i>Euschoengastria antillarum</i>	C	Brennan 1967
<i>Microphthalmus stocki</i>	C	Hartmann-Schroder 1980

Rotatoria

Scientific name	Occurrence	Source Reference
<i>Lecane hummelincki</i>	C	de Ridder 1977
<i>Euchlanis perpusilla</i>	A	de Ridder 1977

Thysanura and Machilida

Scientific name	Occurrence	Source Reference
<i>Ctenolepisma dubitalis</i>	C, B	Wygodzinsky 1959
<i>Meinertellus xerophilus</i>	A	Wygodzinsky 1959

Water-striders

Scientific name	Occurrence	Source Reference
<i>Hebrus elimatus</i>	C, A, B	Drake & Cobben 1960, Kort-Gommers and Nieser 1969

Heteroptera

Scientific name	Occurrence	Source Reference
<i>Dictyla alia</i>	C, A, B	Drake and Cobben 1960
<i>Cryptostemma cobbeni</i>	B	Wygodzinsky 1960
<i>Micracanthia drakei</i>	C, A, B	Cobben 1960

Beetles

Scientific name	Occurrence	Source Reference
<i>Cicindela. s. sobrina f.</i>	B	Wagenaar-Hummelinck 1983

<i>bonaireana</i>		
<i>Methia trium</i>	C, A, B	Gilmour 1968
<i>Atenizoides curaçaoae</i>	C	Gilmour 1968
<i>Eburia bonairensis</i>	C, B	Gilmour 1968
<i>Elaphidion curaçaoae</i>	C	Gilmour 1968
<i>Anelaphus curaçaoensis</i>	C	Gilmour 1968
<i>Stizocera curaçaoae</i>	C	Gilmour 1968
<i>Stizocera insolita</i>	C	Gilmour 1968
<i>Heterachtes arubae</i>	A	Gilmour 1968
<i>Lagocheirus araneiformis curaçaoensis</i>	C, A, B	Gilmour 1968
<i>Urgleptes hummelincki</i>	A	Gilmour 1968
<i>Anthicus laterotuberculatus</i>	C, A, B	Buck 1960
<i>Ecnomosternum vermiculatum</i>	C, B	Marcuzzi 1959
<i>Tapinocomus subnudus</i>	C, A, B	Marcuzzi 1959
<i>Stictoderia subseriata</i>	C, A, B, Visl	Marcuzzi 1959
<i>Rhyasma maria-gratiae</i>	C, B	Marcuzzi 1954, 1959
<i>Diastolinus curtatus curtatus</i>	C, A, B, nVen	Marcuzzi 1959
<i>Blapstinus curassavicus</i>	C, B	Marcuzzi 1954, 1959
<i>Blapstinus orchilensis occidentalis</i>	C, A, B, nVen, Col	Marcuzzi 1954, 1959
<i>Zophobas batavarum</i>	C, A, B, St.M	Marcuzzi 1959, 1977
<i>Epitragus hummelincki</i>	A, nVen	Marcuzzi, 1977
<i>Rhyasma venezuelense</i>	B, Visl, nVen	Marcuzzi 1977
<i>Blapstinus hummelinki</i>	C, B	Marcuzzi 1954, 1977

Butterflies

Scientific name	Occurrence	Source Reference
<i>Brephidium exilis</i> ssp.	C, A, B, nVen	Debrot et al. 1999, Miller et al. 2003
<i>Cyclargus huntingtoni</i>	C, sCar	Debrot and Miller 2004
<i>Hesperia</i>	C(extirpated?),	Snellen 1887.

<i>curassavica</i>	sCar	
<i>Ministymon ligia</i>	C, A, B, nVen	Debrot et al. 1999, Miller et al. 2003.
<i>Strymon basilides ssp.</i>	C	Debrot et al. 1999

Scorpions

Scientific name	Occurrence	Source Reference
<i>Diplocentrus hasethi</i>	C, B	Wagenaar-Hummelinck, 1940b
<i>Rhopalurus hasethi</i>	C, A, B	Wagenaar-Hummelinck, 1940b
<i>R. h. arubensis</i>	A	Bakker 1963

Pseudoscorpions

Scientific name	Occurrence	Source Reference
<i>Pachyolpium arubense</i>	A	Beier 1936, Tooren 1995
<i>Garypus bonairiensis</i>	B	Beier 1936, Tooren 1995
<i>Garypus bonairiensis realini</i>	A	Wagenaar-Hummelinck 1948, Tooren 1995
<i>Apocheiridium caribicum</i>	C	Beier 1936
<i>Pseudochthonius arubense</i>	A	Wagenaar-Hummelinck 1948, Tooren 1995
<i>Tyrannochthonius curazavius</i>	C	Wagenaar-Hummelinck 1948, Tooren 1995
<i>Pachychitra curazavia</i>	C	Wagenaar-Hummelinck 1948, Tooren 1995

Spiders

Scientific name	Occurrence	Source Reference
<i>Camillina jeris</i>	C	Platnick and Shadab 1982.
<i>Selenops curaçaoe</i>	C, A, B	Ayalón García 2001.

Ticks

Scientific name	Occurrence	Source Reference
<i>Agave arubaensis</i>	A	Bartsch 1984
<i>Ornithodoros</i> (<i>Subparmatus</i>) sp.	C	Kohls 1969

Subterranean/freshwater isopods, etc.

Scientific name	Occurrence	Source Reference
<i>Arubolana imula</i>	A	Botosaneanu & Stock 1979
<i>Cyathura curassavica</i>	C	Stork 1940
<i>Cyathura hummelincki</i>	A	Botosaneanu & Stock 1982
<i>Curassanthura halma</i>	C, B	Kensley 1981, Wagele 1982, Wagele & Brandt 1985
<i>Halosbaena acanthura</i>	C	Stock 1976
<i>Ingolfiella tabularis</i>	C	Stock 1977b,c
<i>Ingolfiella grandispina</i>	C	Stock 1979
<i>Ingolfiella putealis</i>	B	Stock 1976b,c
<i>Ingolfiella fontinalis</i>	B	Stock 1977c
<i>Leptocaris echinatus</i>	C	Fiers 1986
<i>Psammogammarus caesicolus</i>	C	Stock 1980
<i>Stenetrium</i> sp.	C	Carpenter & Magniez 1982
<i>Microcharon herreraei</i>	B	Stock 1977a
<i>Angeliara dubitans</i>	B	Stock 1977a
<i>Mesocyclops intermedius</i>	B	Pesce 1985
<i>Metacyclops botosaneanui</i>	B	Pesce 1985
<i>Methaniphargus curassavicus</i>	C	Stock 1977b
<i>M. c. orientis</i>	C	Stock 1977b
<i>Methaniphargus longipes</i>	A	Stock 1977b
<i>M. l. christophorensis</i>	C	Stock 1977b
<i>Metacyclops mutatus</i>	A	Herbst 1988
<i>Neocyclops</i> (<i>Protoneocyclops</i>) <i>geltrudeae</i>	C	Pesce and Galassi 1993
<i>Neocyclops stocki</i>	B	Pesce 1985
<i>Psammogammarus</i>	C, B	Stock 1980, Vonk

<i>caesicolus</i>		& Stock 1987
<i>Psammogammarus longidactylus</i>	B	Vonk & Stock 1987
<i>Saliweckelia emarginata</i>	C, B	Stock 1977b, Vonk & Stock 1987
<i>Saliweckelia holsingeri</i>	B	Stock 1977b
<i>Thermocyclops tenuis longifurcatus</i>	B	Pesce 1985

Shrimps

Scientific name	Occurrence	Source Reference
<i>Salmones arubae</i>	C, A	Holthuis 1990

Fresh- and brackishwater fishes

Scientific name	Occurrence	Source Reference
<i>Poecilia vandepolli</i>	C, A, B, St.M	Poeser 1992
<i>Rivulus marmoratus bonairensis</i>	C, A, B	Hoedeman 1958
<i>Cyprinodon dearborni</i>	C, A, B, Ven, Col Eschmeyer 1999	

Terrestrial Molluscs

Scientific name	Occurrence	Source Reference
<i>Stoastomps walkeri</i>	B	de Jong & Kristensen 1968
<i>Cistulops raveni</i>	C, A, B	de Jong & Kristensen 1968
<i>Tudora m. megacheilos</i>	C, A	de Jong & Kristensen 1968
<i>T. m. pilsbryi</i>	C	de Jong & Kristensen 1968, Wagenaar-Hummelinck 1993
<i>Tudora r. rupis</i>	C	de Jong & Kristensen 1968, Wagenaar-Hummelinck 1993
<i>Tudora r. hatoensis</i>	C	de Jong & Kristensen 1968, Wagenaar-

		Hummelinck 1993
<i>Tudora r. grandiensis</i>	C	de Jong & Kristensen 1968, Wagenaar-Hummelinck 1993
<i>Tudora r. muskusi</i>	C	de Jong & Kristensen 1968, Wagenaar-Hummelinck 1993
<i>Tudora aurantia</i>	B	de Jong & Kristensen 1968
<i>Tudora maculata</i>	B	de Jong & Kristensen 1968
<i>Succinea gyrata</i>	C, B	de Jong & Kristensen 1968
<i>Gastrocopta curacoana</i>	C, A, B, Ven	de Jong & Kristensen 1968
<i>Gastrocopta octonaria</i>	C, A, B, Ven	de Jong & Kristensen 1968
<i>Leptinaria gloynii</i>	C, A, B, St.M	de Jong & Kristensen 1968
<i>Thysanophora vanattai</i>	A	de Jong & Kristensen 1968
<i>Guppya moolengraaffi</i>	C	de Jong & Kristensen 1968
<i>Cerion u. uva</i>	C, A, B	de Jong & Kristensen 1968
<i>Cerion u. knipensis</i>	C, A, B	de Jong & Kristensen 1968
<i>Brachypodella raveni</i>	C, A, B	de Jong & Kristensen 1968
<i>Microceramus bonairensis</i>	C, A, B, Ven	de Jong & Kristensen 1968

Reptiles

Scientific name	Occurrence	Source Reference
<i>Anolis lineatus</i>	C, A	Wagenaar-Hummelinck 1940a
<i>Anolis bonairensis</i>	B	Wagenaar-Hummelinck 1940a
<i>Cnemidophorus arubensis</i>	A	Wagenaar-Hummelinck 1940a
<i>Cnemidophorus murinus murinus</i>	C	Wagenaar-Hummelinck 1940a
<i>C. m. ruthveni</i>	B	Wagenaar-Hummelinck 1940a
<i>Gonatodes antillensis</i>	C, B, Visl	Wagenaar-Hummelinck 1940a
<i>Gonatodes a.</i>	A, Ven,	Wagenaar-

<i>albogularis</i>	Col	Hummelinck 1940a, Buurt 2001
<i>Phyllodactylus julieni</i>	A	Wagenaar- Hummelinck 1940a
<i>Phyllodactylus martini</i>	C, B	Wagenaar- Hummelinck 1940a
<i>Crotalus unicolor</i>	A	Brongersma 1940, Reinert et al. 2002
<i>Leptodeira annulata bakeri</i>	A, nVen	Brongersma 1940, Mijares-Urrutia, 1995
<i>Liophis triscalis</i>	C	Brongersma 1940

Birds

Scientific name	Occurrence	Source Reference
<i>Amazona barbadensis rothschildi</i>	B, Visl	Voous 1957, 1983
<i>Anmodramus savannarum caribaeus</i>	C, B	Voous 1957, 1983
<i>Aratinga pertinax pertinax</i>	C	Voous 1957, 1983
<i>A. p. arubensis</i>	A	Voous 1957, 1983
<i>A. p. xanthogenius</i>	B	Voous 1957, 1983
<i>Athene cunicularia arubensis</i>	A	Voous 1957, 1983
<i>Butorides striatus curacensis</i>	C, A, B	Voous 1957, 1983
<i>Caprimulgus cayenensis insularis</i>	C, A, B, Visl	Voous 1957, 1983
<i>Coereba flaveola uropygialis</i>	C, A	Voous 1957, 1983
<i>C. f. bonairensis</i>	B	Voous 1957, 1983
<i>Dendroica petechia rufopileata</i>	C, A, B	Voous 1957, 1983
<i>Falco sparverius brevipennis</i>	C, A	Voous 1957, 1983
<i>Icterus nigrogularis curacoensis</i>	C	Voous 1957, 1983
<i>Margarops fuscatus bonairensis</i>	B, Visl	Voous 1957, 1983
<i>Myiarchus tyrannulus brevipennis</i>	C, A, B, Visl	Voous 1957, 1983
<i>Sublegatus modestus pallens</i>	C, A, B, Visl	Voous 1957, 1983
<i>Tiaris bicolor sharpei</i>	C, A, B	Voous 1957, 1983
<i>Tyto alba bargei</i>	C	Voous 1957,

		1983, Debrot et al. 1999
<i>Tyto alba</i> spp.	B	Prins et al. 2003
<i>Vireo altiloquus bonairensis</i>	C, B, A, Visl	Voous 1957, 1983
<i>Zenaida auriculata vinaceorufa</i>	C, A, B	Voous 1957, 1983
<i>Zonotrichia capensis insularis</i>	C, A	Voous 1957, 1983

Mammals

Scientific name	Occurrence	Source Reference
<i>Calomys hummelincki</i>	C, A, Ven	Husson 1960a, Martino 2000
<i>Leptonycteris nivalis curasoae</i>	C	Husson 1960b, Petit 1996
<i>Natalus tumidirostris tumidirostris</i>	C	Husson 1960b, Petit 1996
<i>Odocoileus virginianus curassavicus</i>	C, Ven?	Husson 1960b
<i>Sylvilagus floridanus nigronuchalis</i>	C, A	Husson 1960b

Marine Gastropods

Scientific name	Occurrence	Source Reference
<i>Ficus communis</i>	A, Ven, Col	Diaz, 1995, Jong & Coomans, 1988
<i>Murex consuelae</i>	C, Col	Diaz 1995, Jong & Coomans 1988
<i>Chicoreus spectrum</i>	C, A, B	Diaz 1995, Jong & Coomans 1988
<i>Phyllonotus margaritensis</i>	C, A, Ven, Col	Diaz 1995, Jong & Coomans 1988
<i>Calotrophon velero</i>	C, A, Col	Diaz 1995, Jong & Coomans 1988
<i>Risomurex withrowi</i>	C, A, B, sCar	Diaz 1995, Jong & Coomans 1988
<i>Muricopsis praepauxillus</i>	C	Diaz 1995, Jong & Coomans 1988
<i>Muricopsis huberti</i>	C, eCar	Diaz 1995, Jong & Coomans 1988
<i>Murexiella macgintyi</i>	C, A (over-	Diaz 1995, Jong & Coomans 1988

	collected, rare)	
<i>Favartia alveata</i>	?, A, Ven, Col	Diaz 1995, de Jong & Coomans 1988
<i>Favartia germainae</i>	?	Diaz 1995, Jong & Coomans 1988
<i>Bailya marijkae</i>	C	Diaz 1995, Jong & Coomans 1988
<i>Engina stootsi</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Engina demani</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Engina willemsae</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Minipyrene dormitory</i>	?, A, Ven	Diaz, 1995, Jong & Coomans 1988
<i>Anachis demani</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Anachis plicatula</i>	?, A, Ven	Diaz 1995, Jong & Coomans 1988
<i>Anachis dicomata</i>	?, A	Diaz 1995, Jong & Coomans 1988
<i>Cosmioconcha humfreyi</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Mitrella idalina</i>	?, A	Diaz 1995, Jong & Coomans 1988
<i>Decipifus kristenseni</i>	C, A	Diaz 1995, Jong & Coomans 1988
<i>Latirus angulatus</i>	C, A, Ven, Col	Diaz 1995, Jong & Coomans 1988
<i>Latirus eppi</i>	C	Diaz 1995, Jong & Coomans 1988
<i>Teralatirus ernesti</i>	?, A	Diaz 1995, Jong & Coomans 1988
<i>Vasum capitellum</i>	C, A, Ven	Diaz 1995, Jong & Coomans 1988
<i>Olivia fulgurator</i>	A, Ven	Diaz 1995
<i>Olivia reclusa</i>	A	Diaz 1995
<i>Oliviella dealbata</i>	?	Diaz 1995, Jong & Coomans 1988
<i>Oliviella ankeli</i>	?, A, Col	Diaz 1995
<i>Oliviella floralia</i>	?, A, Col	Diaz 1995
<i>Ancilla glabrata</i>	A, Ven, Col	Diaz 1995, Jong & Coomans 1988
<i>Ancilla balteata</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Ancilla lienardi</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Persicula muralis</i>	C, A, Ven	Diaz 1995, Jong & Coomans 1988

<i>Persicula maculosa</i>	A, Ven	Diaz 1995, Jong & Coomans 1988
<i>Persicula cordorae</i>	C	Diaz, 1995 Jong & Coomans 1988
<i>Persicula chrysomelina</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Persicola cypraeoides</i>	C, A	Diaz 1995, Jong & Coomans 1988
<i>Cypraeolina antillensis</i>	C	Diaz 1995, Jong & Coomans 1988
<i>Pusiolina veldhoveni</i>	C, A, Col	Diaz 1995, Jong & Coomans 1988
<i>Pusia pulchella</i>	A, Ven	Diaz 1995, Jong & Coomans 1988
<i>Pusia bibsae</i>	A	Diaz 1995, Jong & Coomans 1988
<i>Conus hieroglyphus</i>	C, A	Jong & Coomans 1988
<i>Conus curassaviensis</i>	A	Diaz 1995
<i>Conus aurantius</i>	C, A, B	Jong & Coomans 1988
<i>Conus attenuatus</i>	C	Diaz 1995, Jong & Coomans 1988
<i>Terebra curaçaoensis</i>	C, A	Diaz 1995, Jong & Coomans 1988
<i>Crassispira candace</i>	B, eCar	Jong & Coomans 1988
<i>Crassispira mennoi</i>	C	Jong & Coomans 1988
<i>Crassispira verbernei</i>	A	Jong & Coomans 1988
<i>Cerodrillia hannya</i>	C	Jong & Coomans 1988
<i>Inodrillia vinki</i>	A	Jong & Coomans 1988
<i>Compsodrillia gonae</i>	A	Jong & Coomans 1988
<i>Daphnella louisae</i>	C	Jong & Coomans 1988

Marine crinoids (Echinodermata)

Scientific name	Occurrence	Source Reference
<i>Nemaster grandis</i>	sCar.	Meyer et al. 1978
<i>Davidaster</i> n. Sp.	C, B	Meyer and Cornett, in prep.

Fossil endemic species

Foraminifera

Scientific name	Occurrence	Source Reference
<i>Vulvulina moolengraaffi</i>	B	Pijpers 1933, Drooger 1953
<i>Gaudryina bonairensis</i>	B	Pijpers 1933, Drooger 1953
<i>Planularia thalmani</i>	B	Pijpers 1933, Drooger 1953
<i>P. westermanni</i>	B	Pijpers 1933, Drooger 1953
<i>Gümbelina martini</i>	C, B	Pijpers 1933, Drooger 1953
<i>Plectofrondicularia rutteni</i>	B	Pijpers 1933, Drooger 1953
<i>Angulogerina moolengraaffi</i>	C, B	Pijpers 1933, Drooger 1953
<i>Lamarckina vermunti</i>	B	Pijpers 1933, Drooger 1953
<i>Baggina thalmani</i>	B	Pijpers 1933, Drooger 1953
<i>Asterigerina kochi</i>	B	Pijpers 1933, Drooger 1953
<i>Globigerina decepta</i>	C	Drooger 1953
<i>Ruttenia coronaeformis</i>	B	Pijpers 1933, Drooger 1953
<i>Cristellaria (Planularia) subminuta</i>	B	Pijpers 1933, Drooger 1953
<i>C. (Planularia) kochi</i>	B	Pijpers 1933, Drooger 1953
<i>C. (Saracenaria) vermunti</i>	B	Pijpers 1933, Drooger 1953
<i>C. (Saracenaria) macgillavryi</i>	B	Pijpers 1933, Drooger 1953
<i>Nodosaria rutteni</i>	B	Pijpers 1933, Drooger 1953
<i>N. (Dentalina) verneuili</i> var. <i>Paucicostata</i>	B	Pijpers 1933, Drooger 1953
<i>Uvigerina bonairiensis</i>	B	Pijpers 1933, Drooger 1953
<i>Anomalina subbadenensis</i>	B	Pijpers 1933, Drooger 1953
<i>Lepidocyclina curasavica</i>	C	Rutten & Vermunt 1932
<i>Lepidocyclina canelli</i> var.	C	Rutten & Vermunt 1932

<i>Hieronymi</i>		
<i>Polylepidina vanslobbeni</i>	C	Rutten & Vermunt 1932
<i>Operculina curasavica</i>	C	Rutten & Vermunt 1932
<i>Nummulites vanderstoki</i>	C	Rutten & Vermunt 1932
<i>Lepidocyclina schotborghi</i>	C	Rutten & Vermunt 1932
<i>Pseudorbitoides Curaçaoensis</i>	C	Krijnen 1967, 1972

Rudists

Scientific name	Occurrence	Source Reference
<i>Durania curassavica</i>	C	MacGillavry 1932
<i>Vaccinites martini</i>	C	MacGillavry 1932

Marine molluscs

Scientific name	Occurrence	Source Reference
<i>Parapuzosia</i> n. sp.	C	Matsumoto 1966, Beets 1966
<i>Crassostrea cuebana</i>	C	Jung 1974

Echinoderms

Scientific name	Occurrence	Source Reference
<i>Oligopygus curasavica</i>	C	Molengraaf 1926, Rutten & Vermunt 1932
<i>Peronella martini</i>	C	Molengraaf 1926, Rutten & Vermunt 1932
<i>Peronella kloosi</i>	C	Molengraaf 1926, Rutten & Vermunt 1932

Reptiles

Scientific name	Occurrence	Source Reference
<i>Geochelone</i> sp.	C	Hooijer 1963, McDonald et al. 1992

Mammals

Scientific name	Occurrence	Source Reference
<i>Paulocnus petrefactus</i>	C	Hooijer 1962
<i>Megalomys curazensis</i>	C	Hooijer 1959, McFarlane and Lundberg 2002
<i>Oryzomys curaçaoe</i>	C	McFarlane and Debrot 2001.
<i>Thomasomys</i> sp.	B	Hooijer 1959

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