

Welcome to Aruba (Part 2):
The history of dispersal of
Eleutherodactylus johnstonei
Implications for Aruba

by

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The Invader

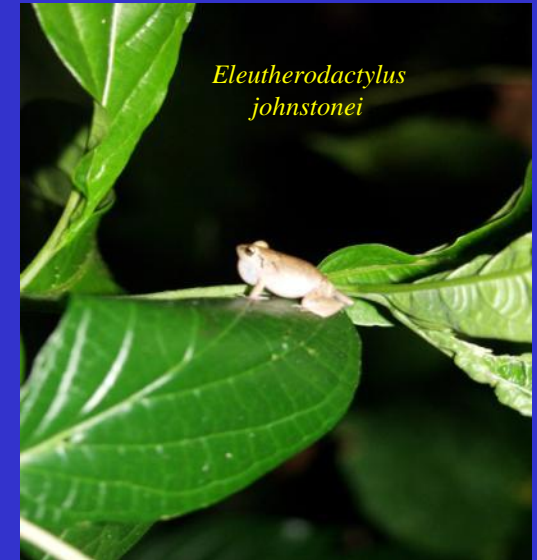
- Native to Antigua Bank ?

Now Found on.....

Anguilla, Barbados, Barbuda, Costa Rica,
Grenada, Guadeloupe, Martinique, Monserrat, St.
Martin, St. Eustatius, St. Christopher, Saba, St.
Kitts, Nevis, St. Lucia, St. Vincent and the
Grenadines, Curacao, Venezuela, Jamaica,
Guyana, Bermuda, French Guiana, Panama,
Surinam, Trinidad and Tobago, Columbia

AND.....of course

Aruba



But not quite.....

WILD ARUBA!

In worldwide distribution it is
second only to.....

The cane toad



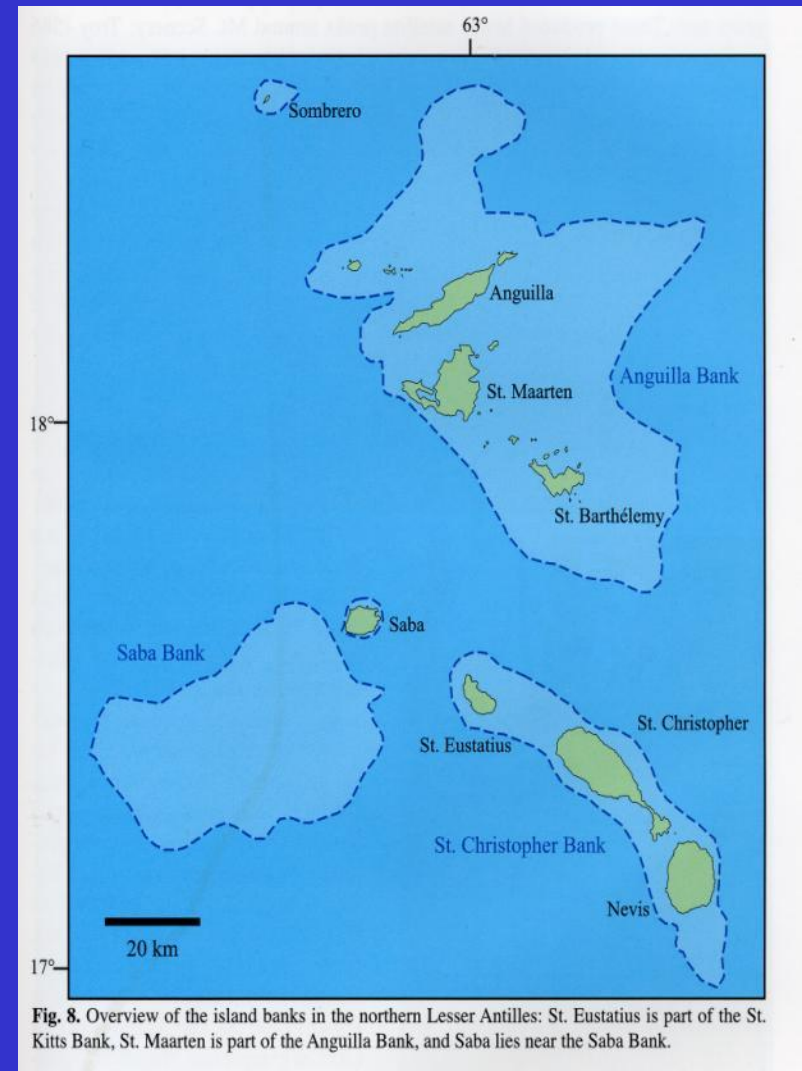
Most Caribbean islands only have one
endemic species of frog.

WHY?

Remember frogs have permeable skin....

AND

They don't like salt!



Were introductions natural events?

.....via hurricanes?

- Or human mediated?

When?

and

How?

Pre-1970

- Bermuda
- Jamaica
- Barbuda
- Barbados
- Grenada
- Guyana
- Venezuela
- St. Martin
- Saba
- St. Eustatius
- St. Kitts
- Nevis
- Antigua
- Montserrat
- St. Lucia
- St. Vincent

Post - 1970

- Panama
- Curacao
- Trinidad
- Union Island
- Mustique
- Bequia
- Dominica
- Marie-Galante
- Guadeloupe
- Anguilla

And Aruba?

In 1991, concurrent with the construction of La
Cubana



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.....via hurricanes?

- Or human mediated?

When?

and

How?



Invasive Yes.....but I like it too!

They exhibit parental care.....



Invasive Yes.....but I like it too!

They are direct developers



Invasive Yes.....but I like it too!

- Johnstone's frog is highly variable
In color
In morphology
and song.....



Cool but Common so why study them?

Because they compete with
less common species.....



Pristimantis euphronides

Species threatened by...

- Global Warming

Pollution



AND

DEADLY FUNGUSES!

Deadly Fungus!

- *Batrachochytrium dendrobatidis*

Nicknamed Chytrid



POSSIBLY THE MOST DANGEROUS
THREAT OF ALL !



What is the truth about the
“Magic” Johnstone’s
frog?

Will Johnstone's frog conquer the
earth?



Maybe!!!!

- Widespread distribution
- Grenada & St. Vincent
- Saba
- Jamaica – (severe impacts on native eleuths)

Maybe Not!!!!

- Dominica
 - Arrived in 1979 (Hurricane David)
 - Still present in 1995
 - Not found after 2005

What about Aruba?

Lessons from other islands

- Barbuda
 - Accidentally introduced in 1685
 - Found only in cisterns and 2 sink holes
 - Now widespread with changed morphometrics
- Anguilla
 - First documentation 1987
 - Restricted to irrigated areas

What about Aruba?

Best Guesses

- La Cabana is not the only suitable habitat here
- Dispersal is limited by:
 - Restricted home range
 - Brief wet season
- Effects on other wildlife will be negligible



What about Aruba....

300 years from now?

Who knows?

Anything else to worry about?

- Native to: Cuba
Isle of Pines, Bahamas,
Cayman Island, Florida (?)
- Now found on: Puerto Rico
St. Croix St. Thomas, Necker
Island, Hawaii, Anguilla Bank



This is a bad boy! Capture and DON'T release any that you find....

Acknowledgements

- Grenada Forestry Department
- Lazy Lagoon, Little Amsterdam, Talk of the Town
- Milwaukee County Zoo
- Milwaukee Public Museum
- Racine Zoological Society
- St. Vincent Forestry Department
- Wild Aruba
- Zoological Society of Milwaukee