

# Eradication of Bay Snook and Blue Mbuna

A “Silver Lining In Every Hurricane” Story



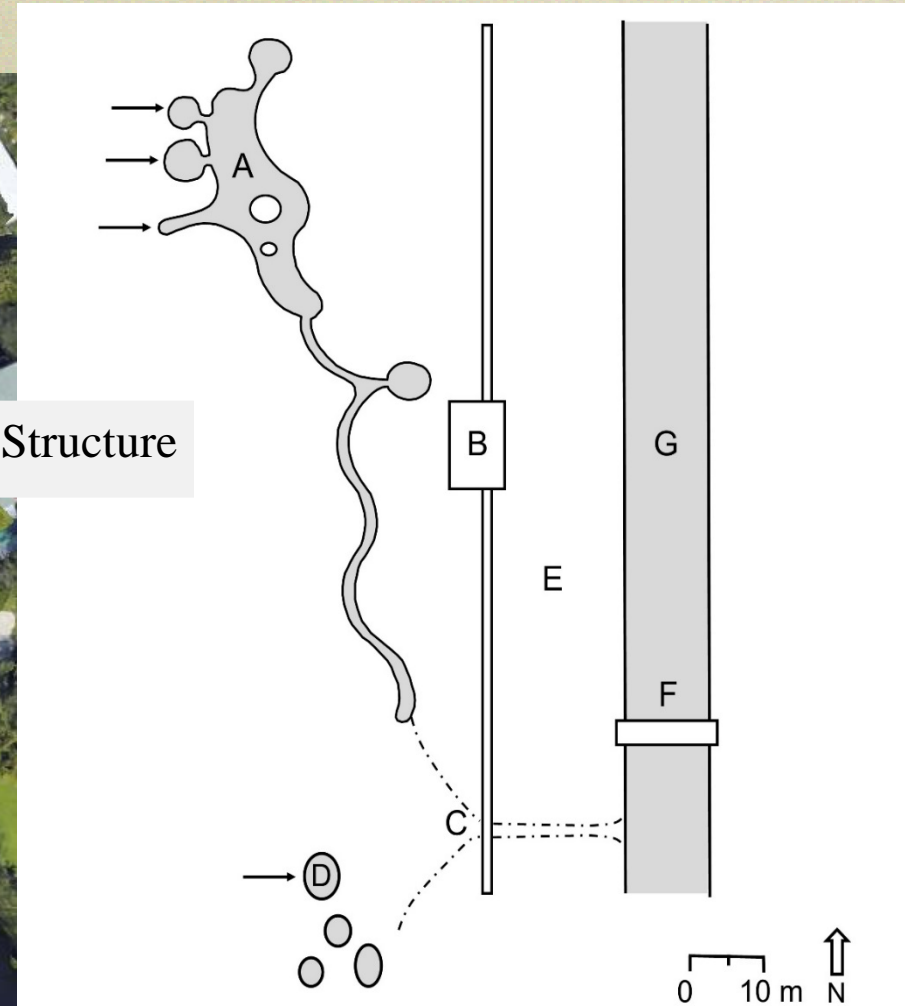
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# Pinecrest Gardens (formally Parrot Jungle)





- Koi found throughout Gardens
- Donated, fish attraction
- Highly valued





- Pacu, Redtail catfish, Ripsaw catfish
- Tarpon, Snook
- All donated





# Bay (Giant) Snook (*Petenia splendida*)

- Discovered in April 2014
- Native to Atlantic slope of Mexico, Guatemala and Belize
- Primarily a riverine species
- Not a snook
- Piscivorous, up to 50 cm TL













# Blue mbuna (*Labeotropheus fuelleborni*)

- Rift Lake cichlid
- Forage on aufwuchs
- Only found in waterfall pond
- SE Florida urban canals likely suitable habitat
- Not collected from the wild





# ECISMA Work Day, August 2014









# Entrance Pond

- Small, shallow, isolated
- Release site for exotic fish





















# Escapement Mitigation

July 2014



December 2014





# Pinecrest Monitoring



May 2016 to March 2017

Limited to seining, minnow traps, backpack electrofisher and hook and line due to presence of high value nonnative fish (e.g., koi, pacu, redtail catfish, etc.)





# Hurricane Irma, September 10, 2017



## Impacts:

Lots of vegetation in water; loss of power; flooding; koi, pacu, catfish moved out of ponds and died when water dropped and stranded them on land; Bay Snook moved into waterfall pond;

Blue mbuna stayed put





# Opportunity (Silver Lining!)

- Most high value fish gone.
- Pinecrest agreeable to rotenone renovation.













FWC staff applied rotenone



Fish were collected for 3 days





# Renovation Results

- Removed 8 nonnative spp.
- 1,177 fish
- Spotted tilapia, Black acara, Bay snook, Blue mbuna primary species
- A few Walking catfish survived





- No Bay Snook observed in follow-up sampling.
- Renovation considered successful!
- Native fish restocked
- Multi-agency and Pinecrest Gardens cooperation
- Prevention messaging
- Connection to Snake Creek restored (flood abatement)
- Checking site in November 2018



Victory is ours!