

# Global Turtle Demand and Illegal Trafficking



Staff Report  
February 20, 2020



Florida Fish and Wildlife Conservation Commission

The purpose of this presentation is to provide the Commission with an update on the global demand on turtles and actions we are taking to combat illegal trafficking here in Florida.

Division: Division of Law Enforcement

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Photo Credit: FWC Photo (Pierson Hill)

Ornate diamondback terrapin (*Malaclemys terrapin macrospilota*)

# Turtle Life Cycle

- Turtles exhibit a life history characterized by slow growth and late maturity.
- Wild turtle populations sustain their greatest natural loss in the egg and juvenile stages, but experience very low natural adult mortality.
- Once depleted, a turtle population recovers very slowly (several decades), if at all.



Photo Credit: FWC Photo (Jonathan Mays)  
Keys mud turtles (*Kinosternon baurii*)

# Current Status of Turtles in Florida

Florida is home to approximately 33 species of turtles and tortoises.

- 23 Freshwater species
- 1 Terrestrial species
- 6 saltwater species
- 3 nonnative species



The reason we say approximately 33 species is because views on species taxonomy may differ. Some species may still be under review for subspecies classification.

## 23 freshwater species:

- common snapping turtle
- Suwannee alligator snapping turtle
- alligator snapping turtle
- spotted turtle
- chicken turtle
- Barbour's map turtle
- Escambia map turtle
- diamondback terrapin
- river cooter
- coastal plain cooter
- Florida red-bellied cooter
- yellow-bellied slider (Yellow-bellied are native to most of state, but we also have the nonnative subspecies red-eared sliders, both of which are pond sliders.)
- Florida box turtle
- Eastern/Gulf Coast box turtle
- striped mud turtle
- Florida mud turtle
- Eastern mud turtle (aka

## Southeastern mud turtle)

- Eastern loggerhead musk turtle
- Intermediate Musk Turtle (aka Aliflora musk turtle)
- Eastern musk turtle (aka stinkpot)
- Florida softshell
- Gulf Coast smooth softshell
- Gulf Coast spiny softshell

## 1 terrestrial species (tortoise):

- gopher tortoise

## 6 saltwater species (aka sea turtles):

- loggerhead sea turtle
- green sea turtle
- Atlantic hawksbill sea turtle
- Kemp's Ridley sea turtle
- Olive Ridley sea turtle
- leatherback sea turtle

## 3 nonnative species:

- Southern painted turtle
- false map turtle
- Pacific Coast giant mud turtle

Photo Credit: FWC Photo - Alligator Snapping Turtle (*Macrochelys temminckii*)

# Florida's Freshwater Turtle Story

- In 2005, Florida began to feel the effects from China's decimation of its own wild turtle populations.
- Florida saw a significant increase in commercial turtle fishing and reacted relatively quickly.
- In 2009, Florida prohibited the sale of wild caught turtles.
- Prior to the prohibition taking affect, FWC worked closely with Florida Department of Agriculture & Consumer Services (FDACS) on an aquaculture brood-stock program.



The aquaculture brood-stock permit allowed for the harvest of wild turtles to be used in private farms. As a result, there are currently 49 certified turtle farms in Florida.

All species of turtles are at times illegally commercialized here in Florida

Sale of wild caught turtles was prohibited under 68A-25.002.

# Florida's Freshwater Turtle Story

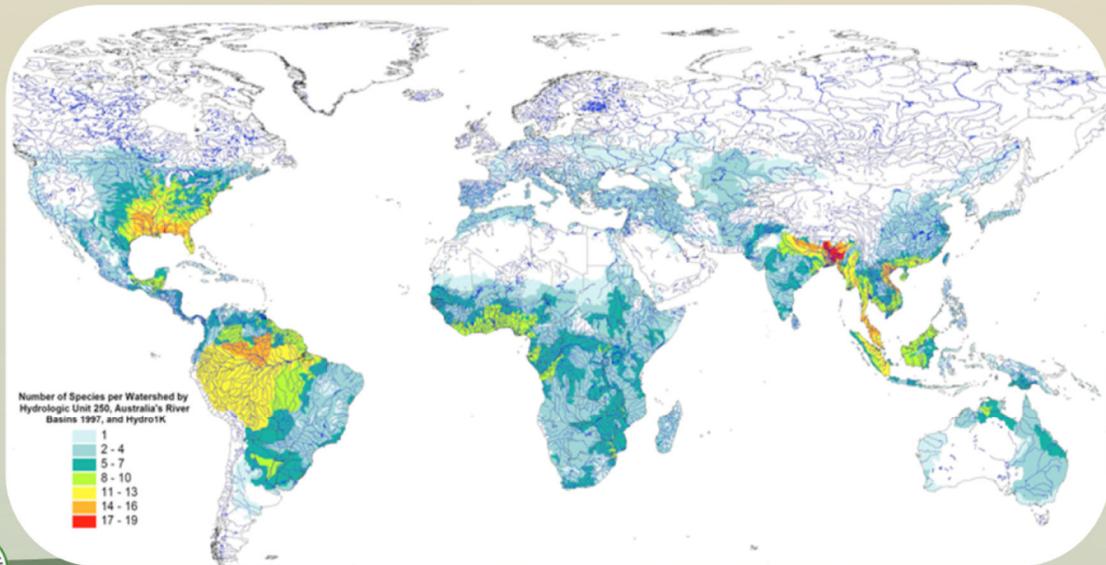
- Looking at the North American Model of Conservation, non-game species were not the original focus.
- As such, we are still adjusting our management structures to thoroughly protect non-game species.



Photo credit: FWC Photo (Jonathan Mays)

Spotted turtle (*Clemmys guttata*)

# Global Turtle Diversity



The Southeastern United States is home to one of the most abundant areas in the world for freshwater turtle diversity.

The rich biodiversity of Florida's turtle species increases the likelihood of our wild turtles being targeted by illegal activity and transported to major international export hubs like Miami.

Photo Credit: Brian Horne, Wildlife Conservation Society

# Market Demands on Turtle Markets in Florida and the US

Currently, the most sought after Florida turtles are:

- Box turtles
- Diamondback terrapins
- Mud and musk turtles
- Softshell turtles
- Snapping turtles



Photo Credit: FWC Photo (Jonathan Mays)

(Left photo) diamondback terrapins (*Malaclemys terrapin*)

(Top right photo) Florida box turtle (*Terrapene carolina bauri*)

(Bottom right photo) Keys mud turtles (*Kinosternon baurii*)

# Global/International Demand/Trade

## Internet Trade



**Florida box turtle for sale** Sale!

**\$299.00 - \$599.00**

The turtle store has some fantastic captive bred Florida box turtles for sale online. 100% captive bred baby Florida box turtle hatchlings for sale are available here at the turtle store. We offer our Florida boxes as hatchlings, well started baby Florida box turtles. Also, Floridas are available as yearlings, juveniles and even captive bred adult Florida box turtles.

**Florida box turtle information and quick care guide**



**eastern box turtle for sale** Sale!

**\$189.00 - \$489.00**

Common Names: Eastern Box Turtle, Eastern Box Turtle for sale, or EBT for sale  
Scientific Name: Terrapene carolina  
Origin: This subspecies of the common box turtle is native to the eastern and mid atlantic region of the United States. It usually has 4 toes on the rear feet. The three-toed have 3 toes  
Size: 5" - 6"  
Lifespan: 45-50 years



Globally, the internet trade is booming. There is an increasing volume and variety of turtles being sold on the internet for pets, captive breeding and many other purposes.

Online trading is open to everyone, making a storefront no longer necessary.

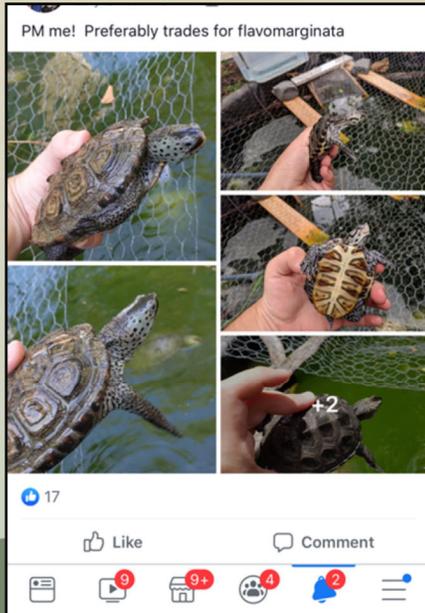
A variety of internet platforms provide a place for traders from around the world to communicate and facilitate online sales.

Prices vary based on a number of factors including type of species, age, protection status, availability, emerging demands, ability to survive, reproductive capacity and purpose of the purchase to name a few.

Photo Credit: FWC Photo

# Global/International Demand/Trade

## Internet Trade



A recent trend has shown many online groups not using words related to buying and selling, instead they post only images and encourage price negotiations through private message and other methods.

The seller cannot say “for sale”, however, if it looks like it is for sale – it is for sale – and you can contact the user via private message. This is a quick and easy failsafe to circumvent Facebook (or an online marketplace) policy.

Photo Credits:

(Left) Brian Horne, Wildlife Conservation Society (diamondback terrapin)

(Center) FWC photo

(Right) Brian Horne, Wildlife Conservation Society (impressed tortoise)

# Global/International Demand/Trade

## Human Consumption



Turtles are sought for many consumption purposes. They are used in everything from soups to jellies and are often served at social gatherings and weddings as highly prized food dishes.

Turtles are highly sought after and are revered for their power, wisdom, and longevity according to Chinese mythology. It's believed that by consuming turtles, the individual will gain these traits from the turtle.

Photo Credit: Brian Horne, Wildlife Conservation Society

# Global/International Demand/Trade

## Medicinal Purposes



Turtles are used for many medicinal purposes in Traditional Chinese Medicine (TCM), including the use of bones, cartilage and other various parts of the turtle. In Indonesia there is trade in the plastron and bone powder is boiled to make jelly/glue and used for collagen/cosmetics.

These traditional medicines are believed to cure everything from the common cold to high blood pressure to gall bladder issues. In some instances, it is believed to even cure cancer.

The carapace of the softshell turtle is also used in TCM. The sun-dried carapace of the softshell turtle is one ingredient used in herbal medicine and thought to cure or relieve fever, dizziness and more.

Wild caught and older turtles are considered to have more Qi (pronounced 'chee'). This is one of the fundamental powers of universal energy used in TCM.

Photo Credit: Brian Horne, Wildlife Conservation Society  
Golden coin turtle (*Cupra trifasciata*)  
Indian tent turtle (*Pangshura tecta*)  
Various hinge back tortoises and African mud turtles

# Asian and Indian Turtle Trade



The Asian and Indian turtle trade is measured in tons of turtles per day and is clearly unsustainable.

It's difficult to grasp how many millions of turtles and tortoises are imported for the Asian and Indian turtle trade.

Bottom left photo shows a Madagascar confiscation of close to 10,000 radiated tortoises bound for the illegal pet trade in Asia. These tortoises were kept at one single house at the time of confiscation. In Madagascar alone, it's estimated that over 20,000 radiated tortoises have been confiscated.

Photo Credit: Brian Horne, Wildlife Conservation Society

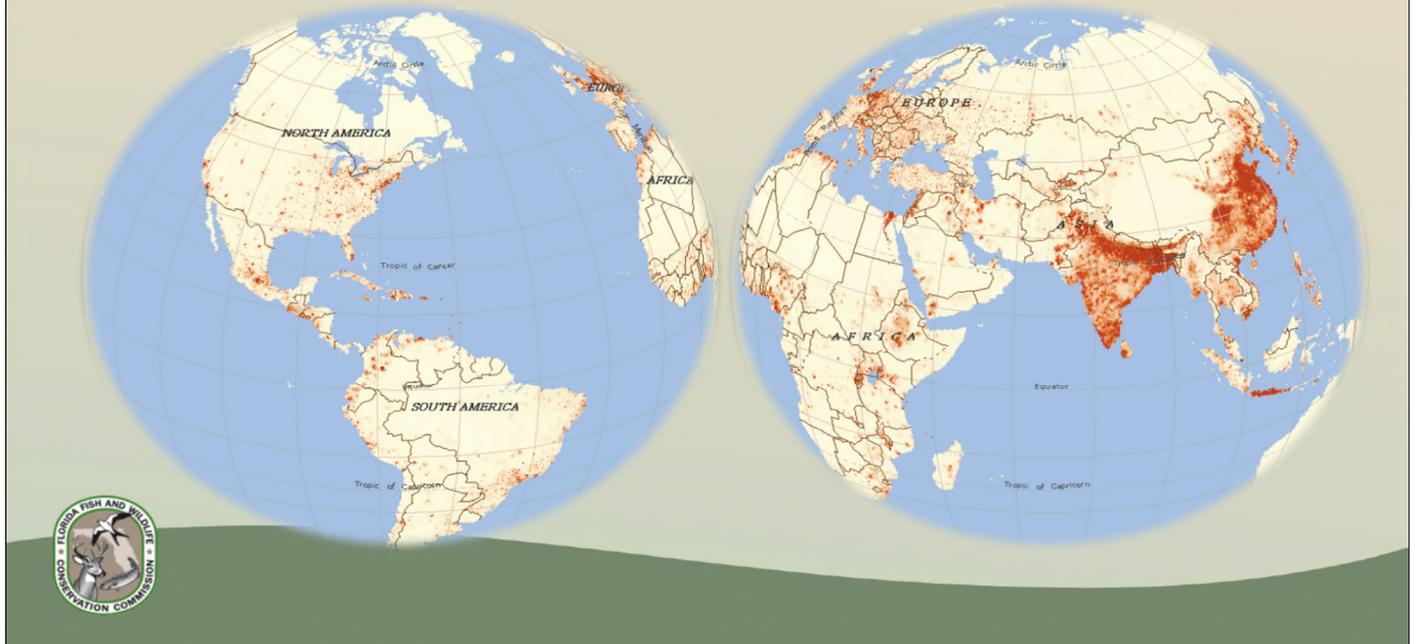
(Top left photo) Possibly red eared sliders from a farm.

(Top right) Southern River terrapin (*Batagur affinis*) and Giant Asian river turtle (*Orlita borneoensis*)

(Bottom right) Indian flapshells (*Lissemys punctate*) and Indian softshells (*Nilssonina gangitica*)

(Bottom left) Radiated tortoises (*Astrochelys radiata*)

# Human Population Density



It is staggering to see how densely populated India and China are compared to the eastern United States.

When you look at supply vs. demand, there are billions of people on the other side of this planet that have a traditional need for turtles.

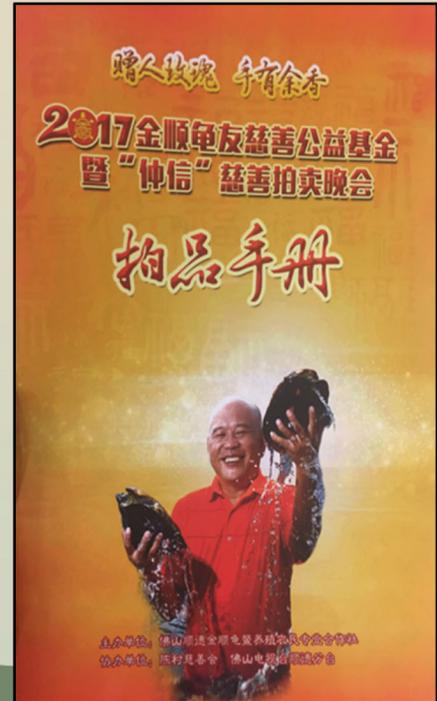
The approximate human population of Asia is over 4 billion. By 2022, it's estimated that 76 percent of China's urban population will be considered middle class, this in turn will translate into huge buying power and will almost definitely have an impact on trends in the turtle market.

2022 China - 550 million projected for Chinese middle class population

2020 USA - 327 million is the current US total population

Photo Credit: Brian Horne, Wildlife Conservation Society

# Turtle Auctions



Turtle auctions are mostly in Southern China near Shanghai. They are a legal means for selling turtles at inflated prices.

Turtles are bought and sold similar to any other commodity. Buying turtles at these auctions is seen as a status symbol.

Auctions are also about social status and legalizing money given to the rich and powerful in hopes of gaining their favor.

Auctions are turned into large productions and draw huge crowds.

Photo Credit: Brian Horne, Wildlife Conservation Society

# Turtle Exports



Top 3 ports by number of live turtles:

1. Los Angeles, CA (2,956,298)
2. New Orleans, LA (2,826,069)
3. Miami, FL (521,413)

Top 3 species (slide chart) includes live turtle exports from all U.S. ports.

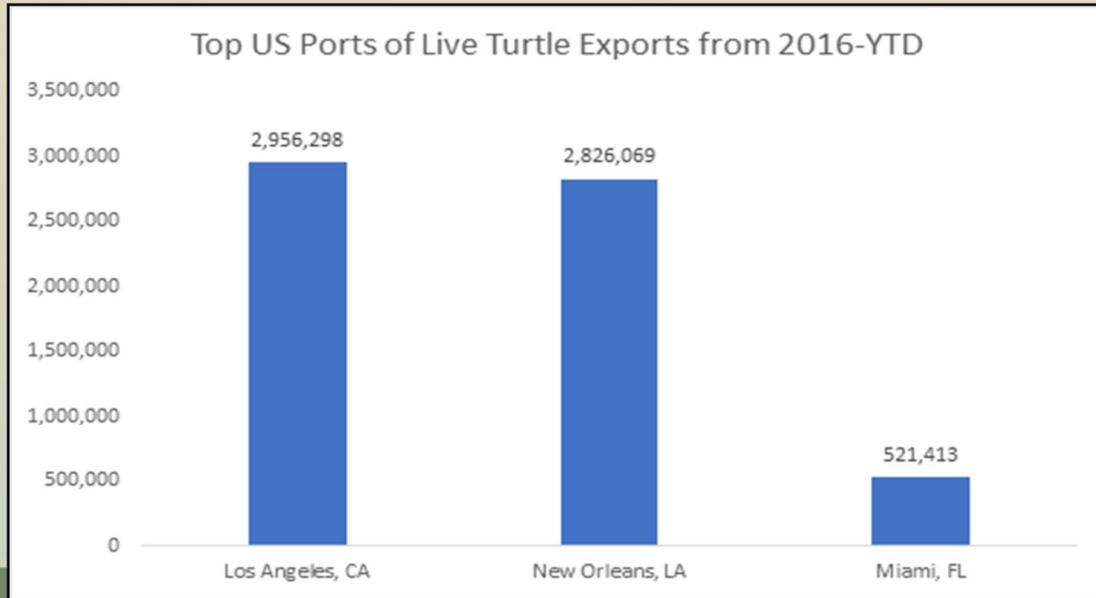
Top species exported from ports found in Florida:

1. Florida cooter
2. Florida red-bellied cooter
3. Red-eared slider
4. Peninsula cooter
5. Yellow-bellied slider
6. Florida softshell

Export data provided by USFWS/OLE

Photo Credit: FWC photo  
Florida softshell (*Apalone ferox*)

# Top 3 Ports of Export



(Export data provided by USFWS/OLE)

Graphs show the number of live turtles exported via these three ports.

Top 3 Florida Ports by number of live turtles:

1. Miami, FL (521,413)
2. Tampa, FL (290)
3. Orlando, FL (1)

Number of live turtles exported via Florida ports:

<u>Year</u>	
2016	172,231
2017	88,845
2018	140,467
2019	116,774
<u>2020</u>	<u>3,387</u>
Total	521,704

Export data provided by USFWS/OLE

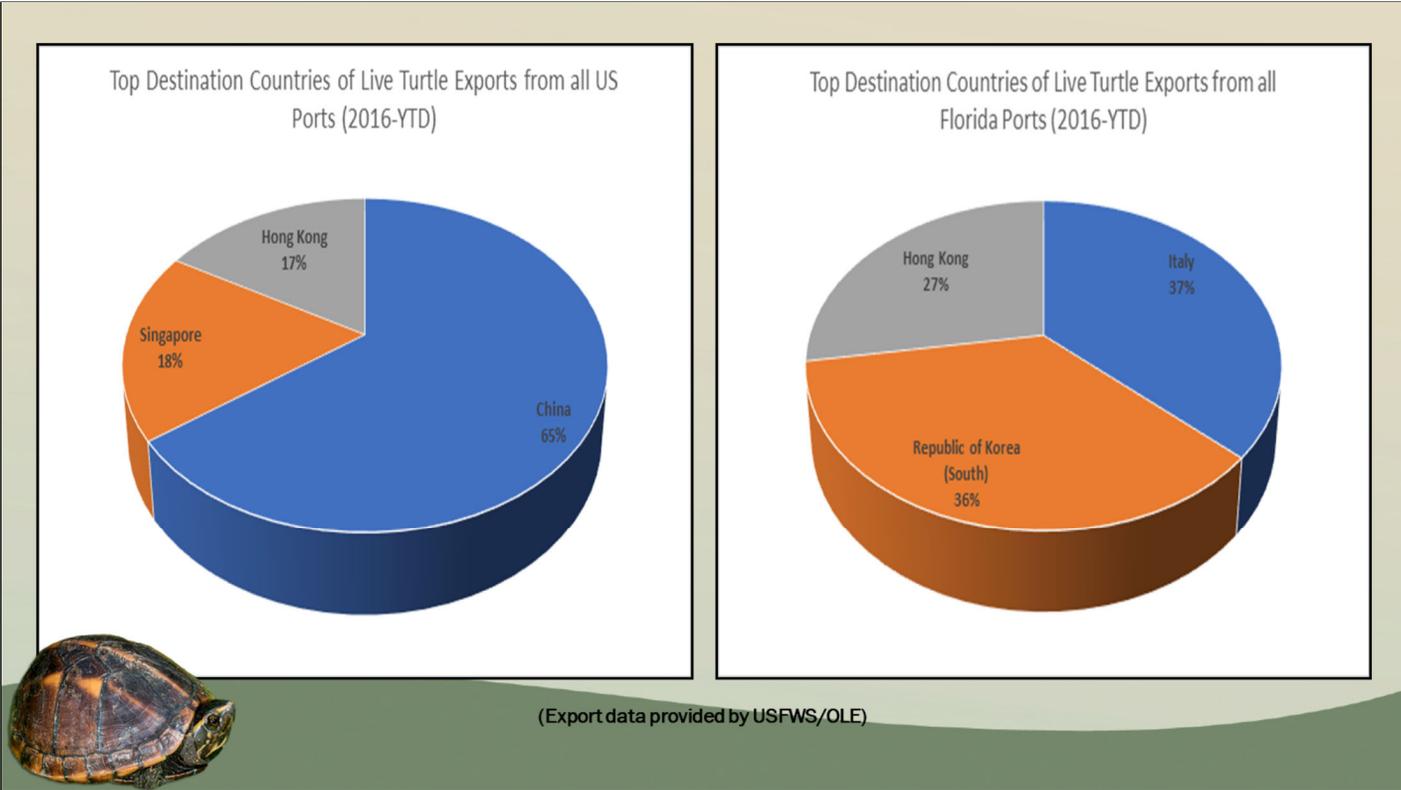


Photo Credit: FWC Photo (Jonathan Mays)

Striped mud turtle (*Kinosternon baurii*)

# Turtle Exports

- Collaboration and proactive enforcement have helped to identify the illegal black market trade of Florida's wild turtles.
- Illegal market trends have shifted in response to increased enforcement efforts in Florida.



Photo Credit: FWC Photos

# Investigative Efforts

- Operation “Longneck”
- Operation “Net Sweep”
- Operation “Donatello”



Operation Longneck, Net Sweep, and Donatello all investigated the illegal sale of Florida’s wild caught turtles. In each investigation, most, if not all, turtles were bound for overseas markets. Currently have an ongoing turtle investigation.

During Operation Longneck alone, more than 600,000 pounds of turtles were shipped to China by the defendants. USFWS provided data showing the domestic market value of these turtles at around \$6.6 million and retail value of the turtles in China was estimated at \$10.8 million. At the culmination of Operation Longneck, three individuals were sentenced under the Lacey Act. 2 felony convictions; 90 days jail; 90 days home confinement; \$20,000 fine; 250 hours community service; forfeiture of illegal turtles; forfeiture of vehicles; 2 years probation

Operation Net Sweep (Multi-regional operation documented hundreds of pounds of softshell turtles illegally sold from the wild):

Charge with Dealing in Stolen Property

2<sup>nd</sup> Degree Felony; 7 Felonies; 13 Misdemeanors; 20 total charges

Operation Donatello (Long-term operation uncovered multiple defendants illegal purchase of multiple species of wild caught freshwater turtles):

Defendants were charged with Dealing in Stolen Property

2<sup>nd</sup> Degree Felony

5 Felonies; 40 Misdemeanors; 45 total charges

Photo Credit: FWC Photo

## National Trends



- International prices and demand will continue to go up
- Bog turtles and flattened musk “Holy Grail” turtles
- Map turtles increasing demand within EU, will they be the next ‘fad’ in China.



The demand for turtles in China is only increasing even though there are large scale farms producing millions of turtles specifically for consumption, there is still a demand for adult wild caught turtles to keep the farms running.

Bog turtles and flattened musk turtles are highly sought after because so few are available and they don't necessarily breed in large numbers in captivity.

Musk turtles are prized because they are so rare and people place more value on having perceived rare species.

EU prices for bog turtle hatchlings is rumored at 15K euros (\$16,538 USD) per hatchling.

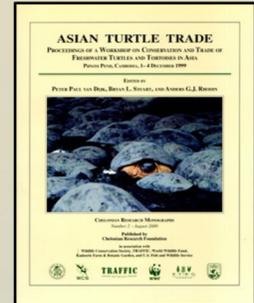
Photo Credit:

(Left) Brian Horne, Wildlife Conservation Society - Flattened musk turtles (*Sternotherus depressus*)

(Right) FWC Photo (Jonathan Mays) - Escambia map turtle (*Graptemys ernsti*)

# What does this all mean?

- Elevate the status of the international turtle trade to the same level as other megafauna
- Work closely with state, federal, and industry stakeholders and NGO's
- Monitor turtle trade and illegal black markets as well as turtle populations
- Association of Fish and Wildlife Agencies (AFWA) is building a case study on US turtle trade
- Continue to conduct research



Moving forward:

- Work with state and federal partners
- Work closely with AFWA, PARC, FDACS, Industry and NGO's
- National/International Level – AFWA I&I Summit
- Southeast Turtle Task Force
- Monitor markets and trends/Internet trade
- Continue to look at trends and emerging issues
- FWC monitor turtle populations, conduct research and studies
- Monitor export data
- Investigate black markets
- Proactive port inspections and K-9 for enhanced detection

Photo Credit: Brian Horne, Wildlife Conservation Society  
African softshell turtle (*Trionyx triunguis*)

# Discussion

