

CHANNEL CATFISH CULTURE

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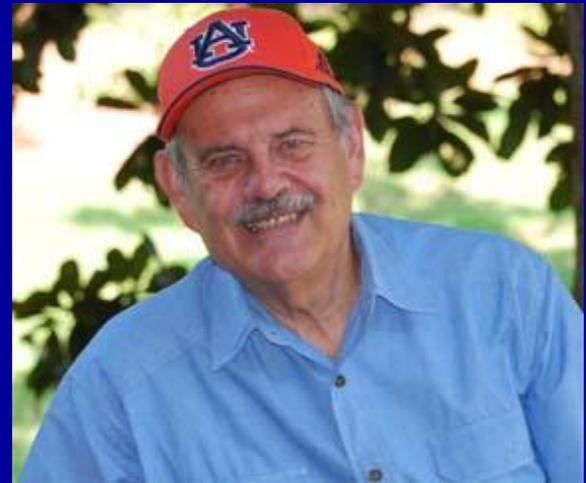
UNITED STATES

BY

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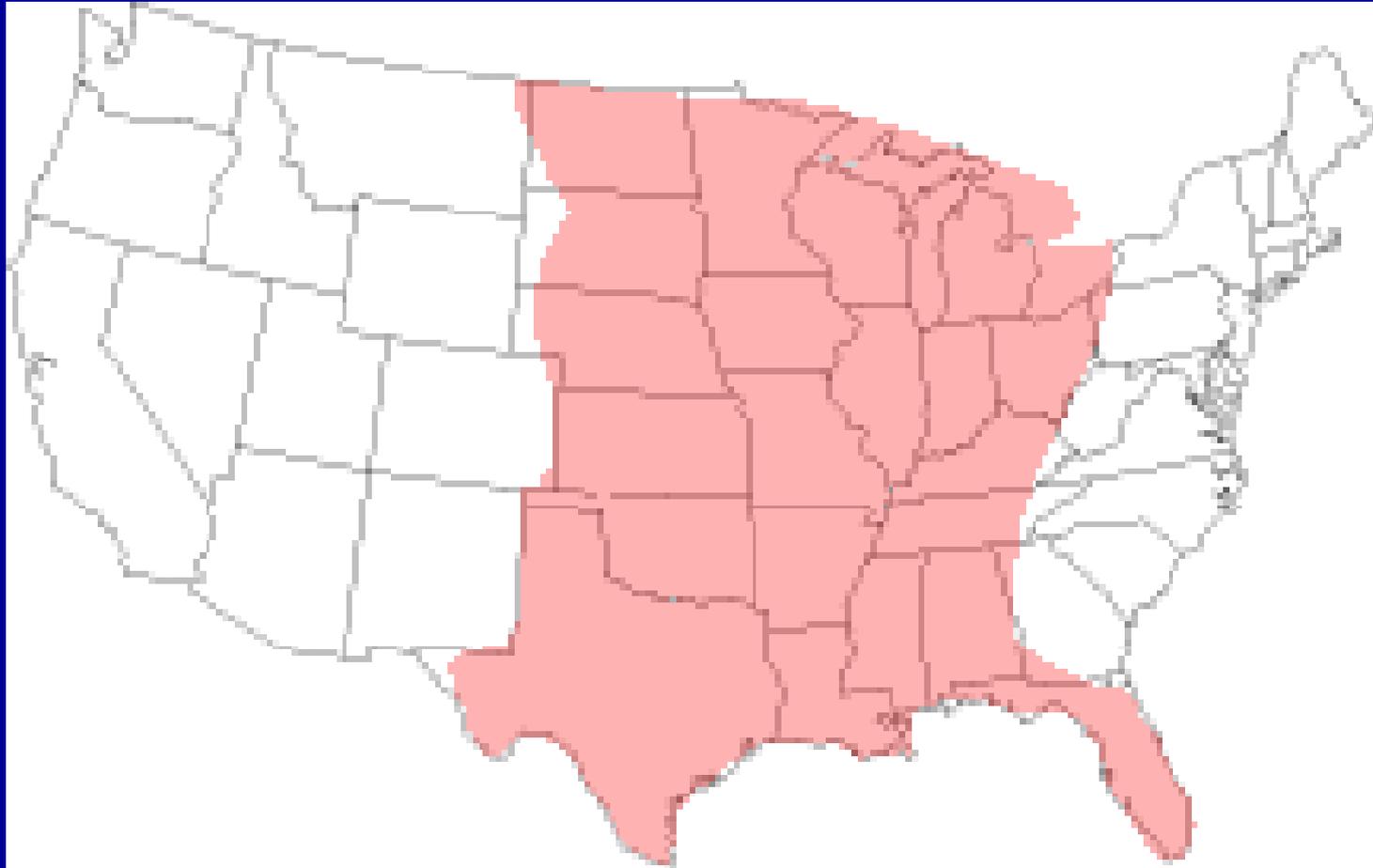
Auburn University, AL 36849



Channel Catfish (Ictalurus punctatus)



Native Range Of Channel Catfish In The United States



Food Habits



omnivorous

Preferred Habitat



Rivers



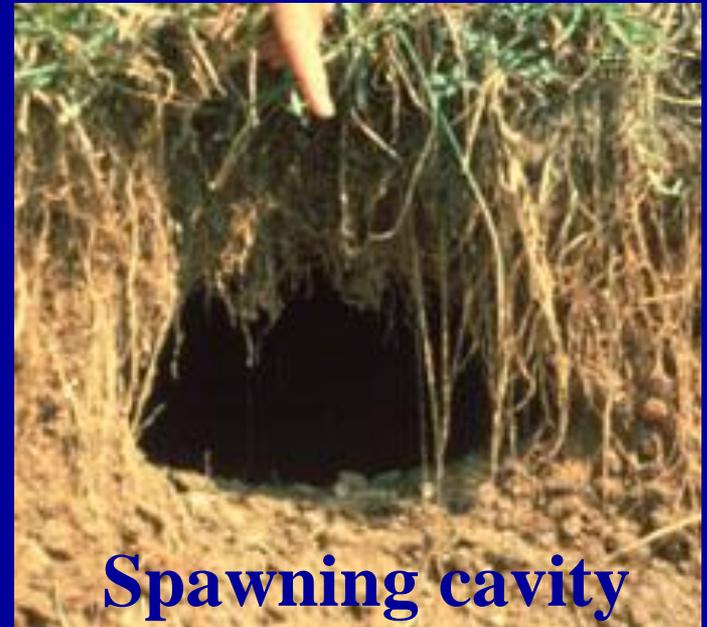
Reservoirs and lakes

Reproductive Life History

- 1. Sexual maturity is reached in 2 to 3 years in the southeastern U. S.**
- 2. Spawning takes place in a cavity formed by rocks, logs or a hole in a lake or river bank.**
- 3. Preferred spawning water temperatures: 70 to 84 F, with optimal temperature 75 to 79 F.**

Sexual behavior

1. Males defend a territory/cavity.
2. Female enters the cavity and spawns.
3. Males incubate eggs and defend fry.
4. Males can spawn with more than one female a season.





Hillside pond



Levee ponds



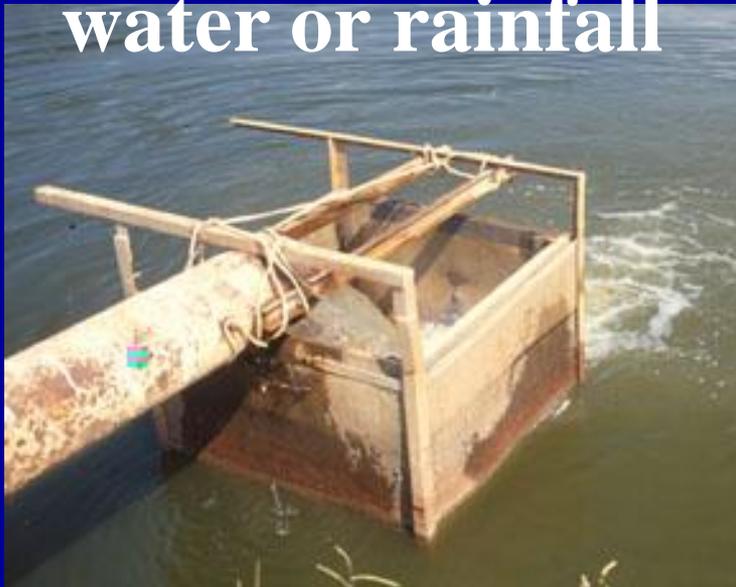
Flat pond bottom

Catfish are grown in 5 to 25 acre earthen ponds with flat bottoms and drain pipes.

Catfish ponds are filled with either:



**Filtered surface
water or rainfall**



Well water



Spawning in captivity:

Stock adults 3 to 8 years old

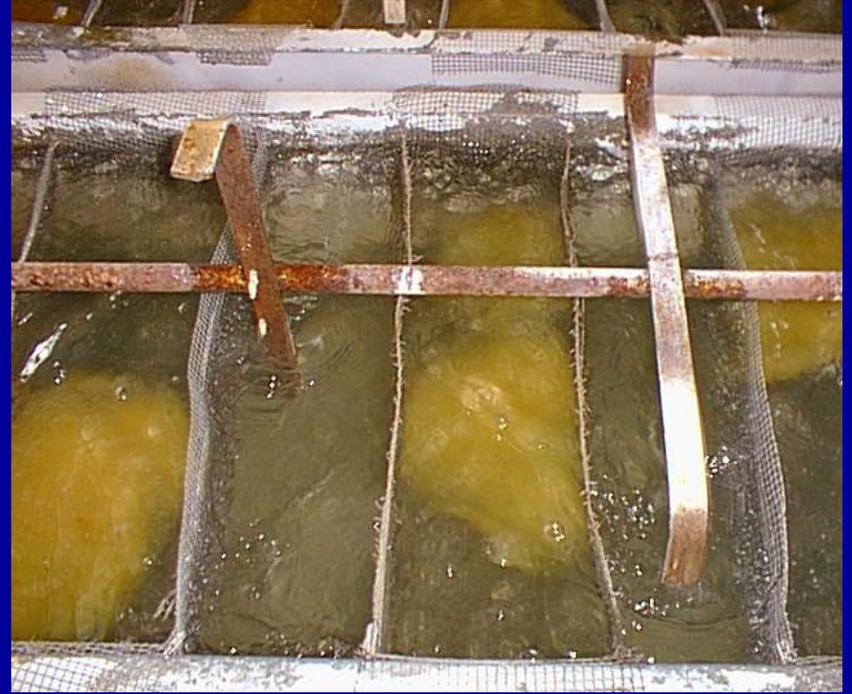


Spawning Containers



Spawning occurs during May and June in the Southeastern U. S. Spawning cans are checked every 2 to 3 days for spawns.





Eggs are placed in 5-mm square wire mesh baskets suspended in a paddlewheel incubator.

Eggs hatch in 5 to 6 days at water temperatures of 75 to 80 F.





Fry (small catfish) are stocked into ponds and cultured to fingerlings in 6 to 8 months. Fingerlings are stocked into fattening ponds during January to March for growth to market size

Floating pellets are distributed by a feed blower mounted on a truck.



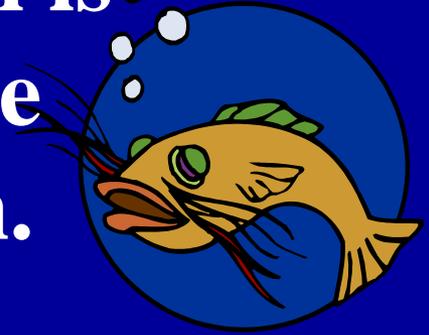
corn wheat soybean



Catfish are fed what they will eat



Dissolved oxygen concentration is checked night and day to assure that levels remain above 2 ppm.



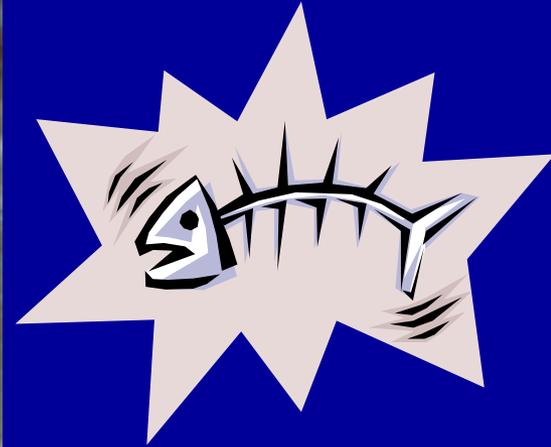
**Electric (fixed) and tractor (mobile)
powered paddlewheels are used to increase
Dissolved oxygen levels.**



**No water exchange is practiced because ponds are
large and pumping water is costly.**

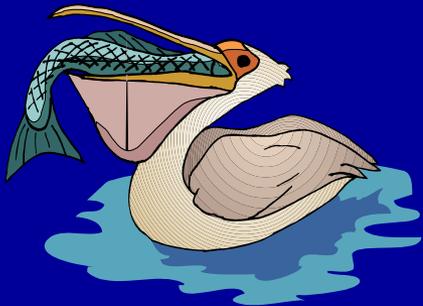
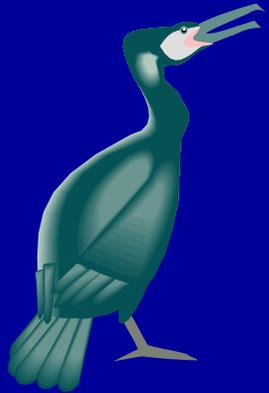
**Low Dissolved oxygen can kill catfish within
1 or 2 hours.**





Many diseases cause fish mortality.

Birds consume many fish in some regions.



Gas cannon to scare the birds





Catfish are grown 12 to 18 months in fattening ponds before reaching a harvest size of 1.5 to 2.5 lbs. Catfish are removed from the pond with a seine stored on a hydraulic reel powered by a tractor.



Catfish are retained in a holding net overnight to eliminate small catfish. Fish are crowded for loading onto the transport truck.

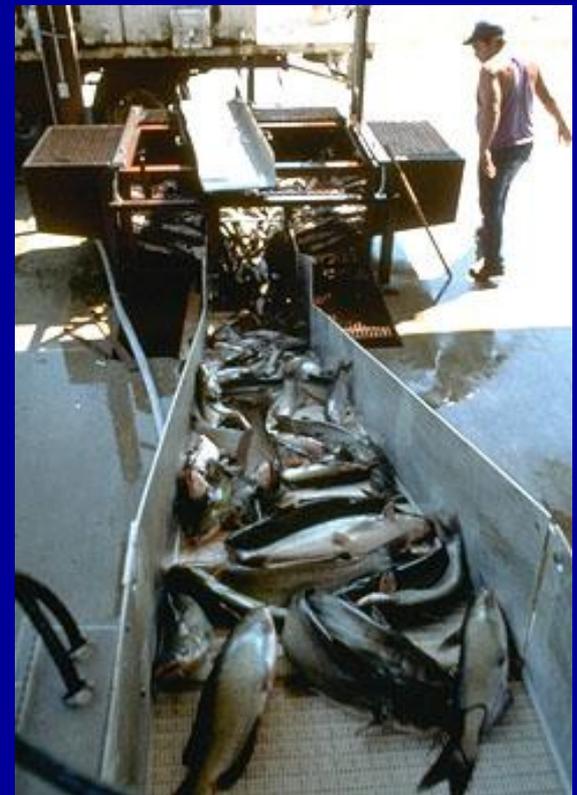
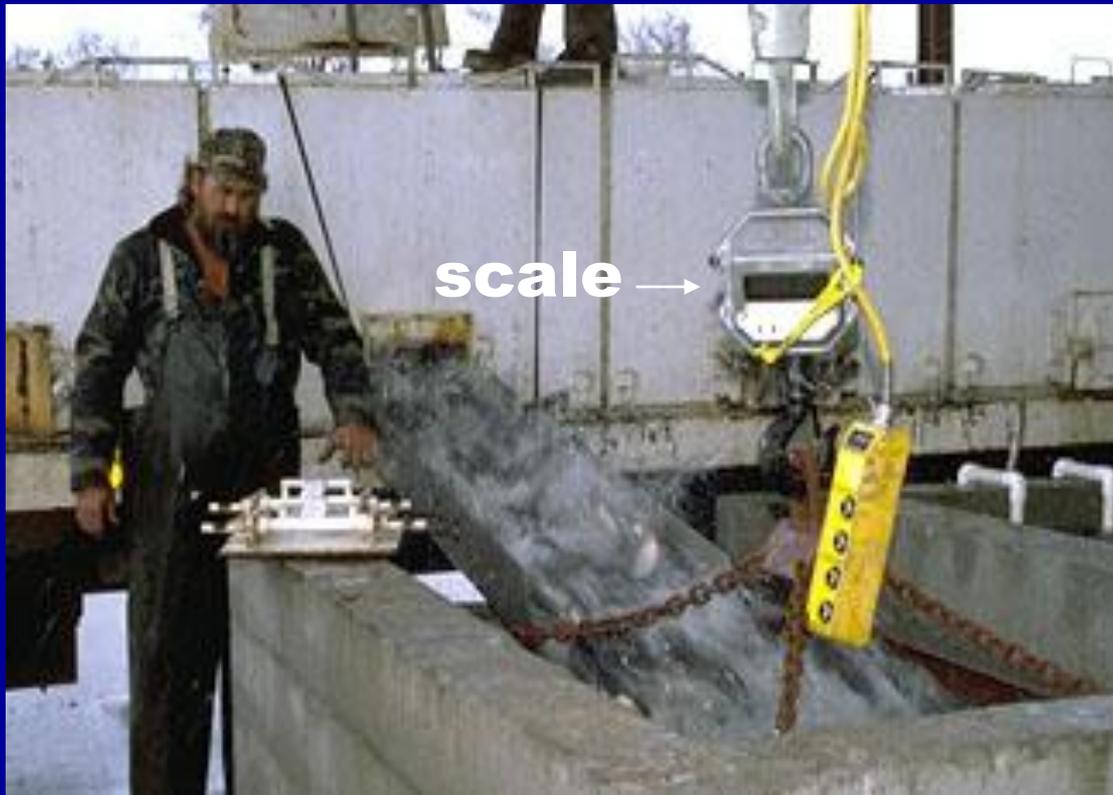
Catfish are weighed onto trucks taking the fish to the processing factory.



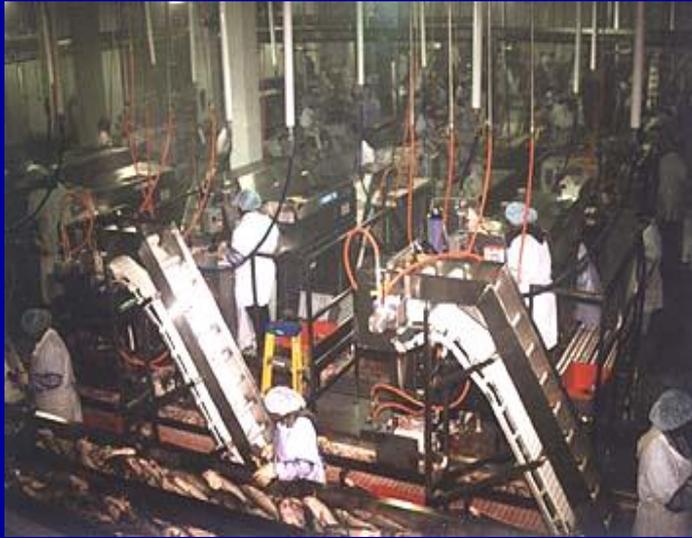
Fish are checked for off-flavor 2 weeks, 1 day and upon arrival at the processor. Off-flavor fish are not harvested.



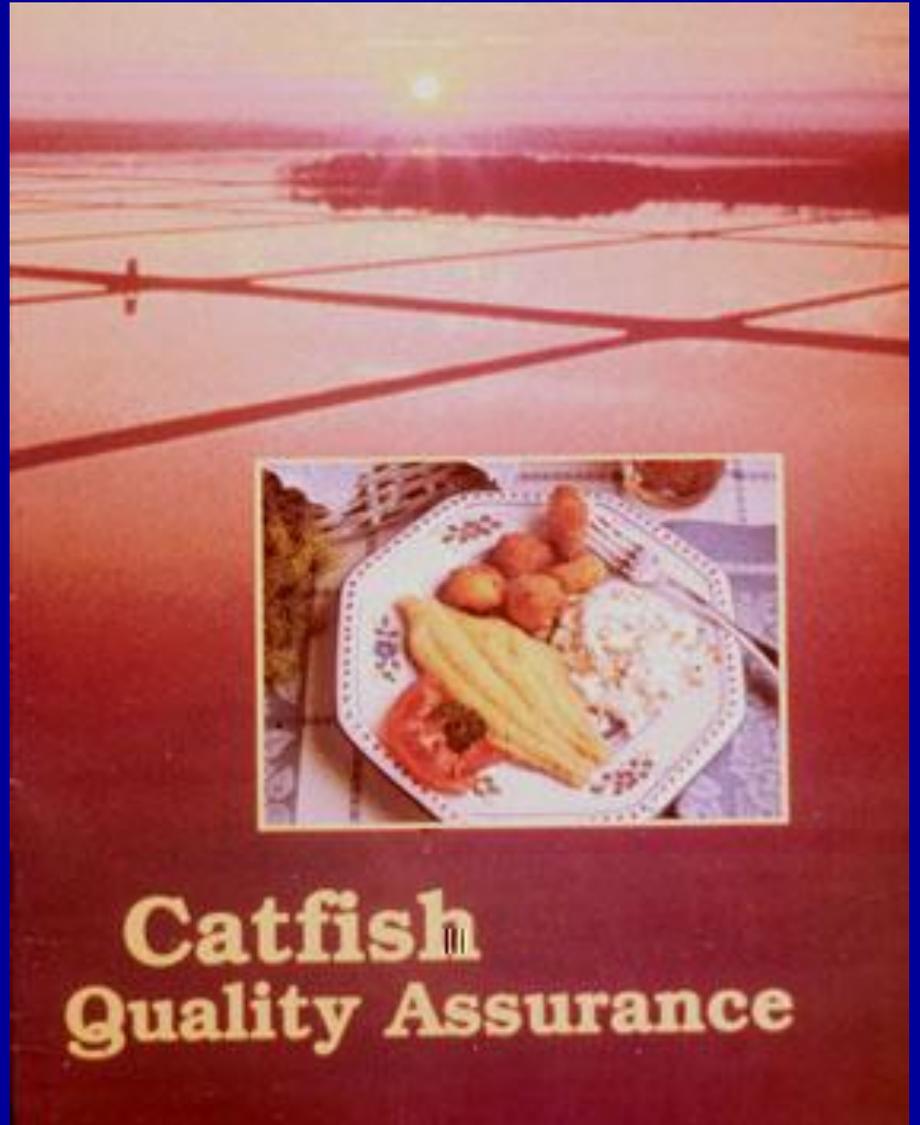
Catfish are weighed a second time upon arrival at the processor. Fish arrive alive.



Catfish are cleaned, filleted and frozen by the processor.



The catfish industry maintains a quality control program to insure the consumer a fresh and healthy product.



**Catfish
Quality Assurance**

Principle farming states are located in the Southeastern U. S.. Mississippi (MS) Alabama (AL) and Arkansas (AR) produced 93 % of the farmed catfish in 2010.



Mississippi accounts for 54% of farmed catfish

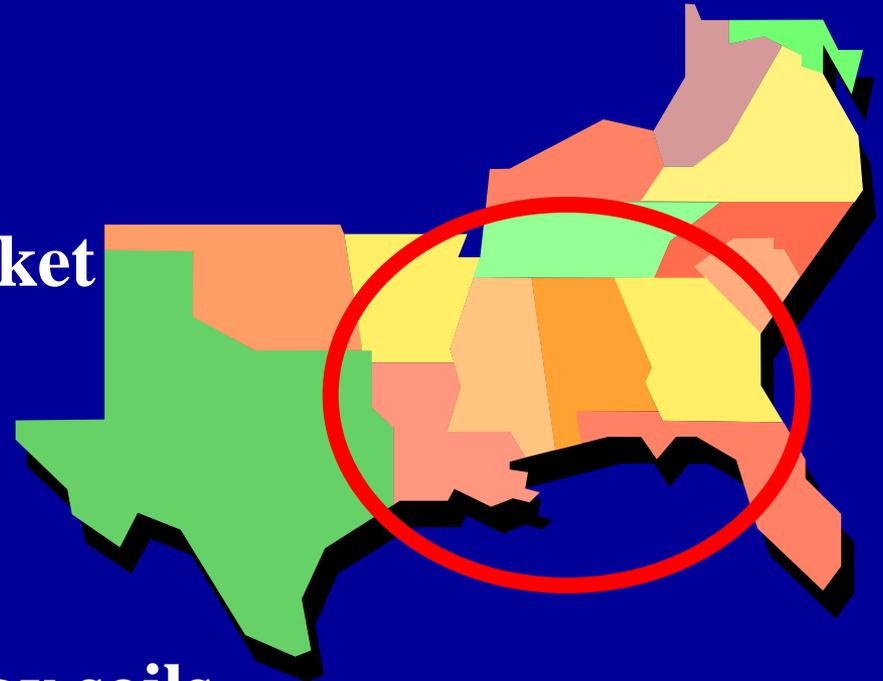
The channel catfish industry developed in the Southeast because:

1. Popular food fish - market

2. Warm climate

3. Abundant water and clay soils

4. Close to major grain farming regions - cheap fish feeds



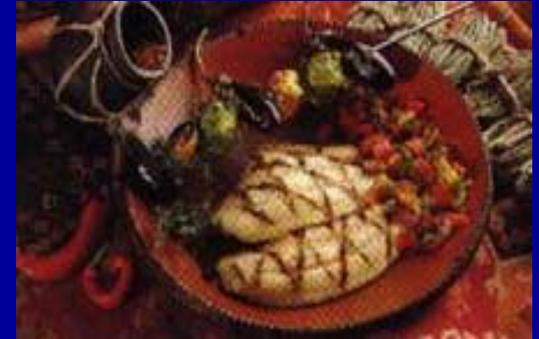
Channel Catfish Live Weight Processed and Average Price per Pound, 2010

YEAR	LIVE WEIGHT PROCESSED, lb		AVG. PRICE* PER lb, \$US.
----- 2010	----- 479,000,000		----- 80.2 cents

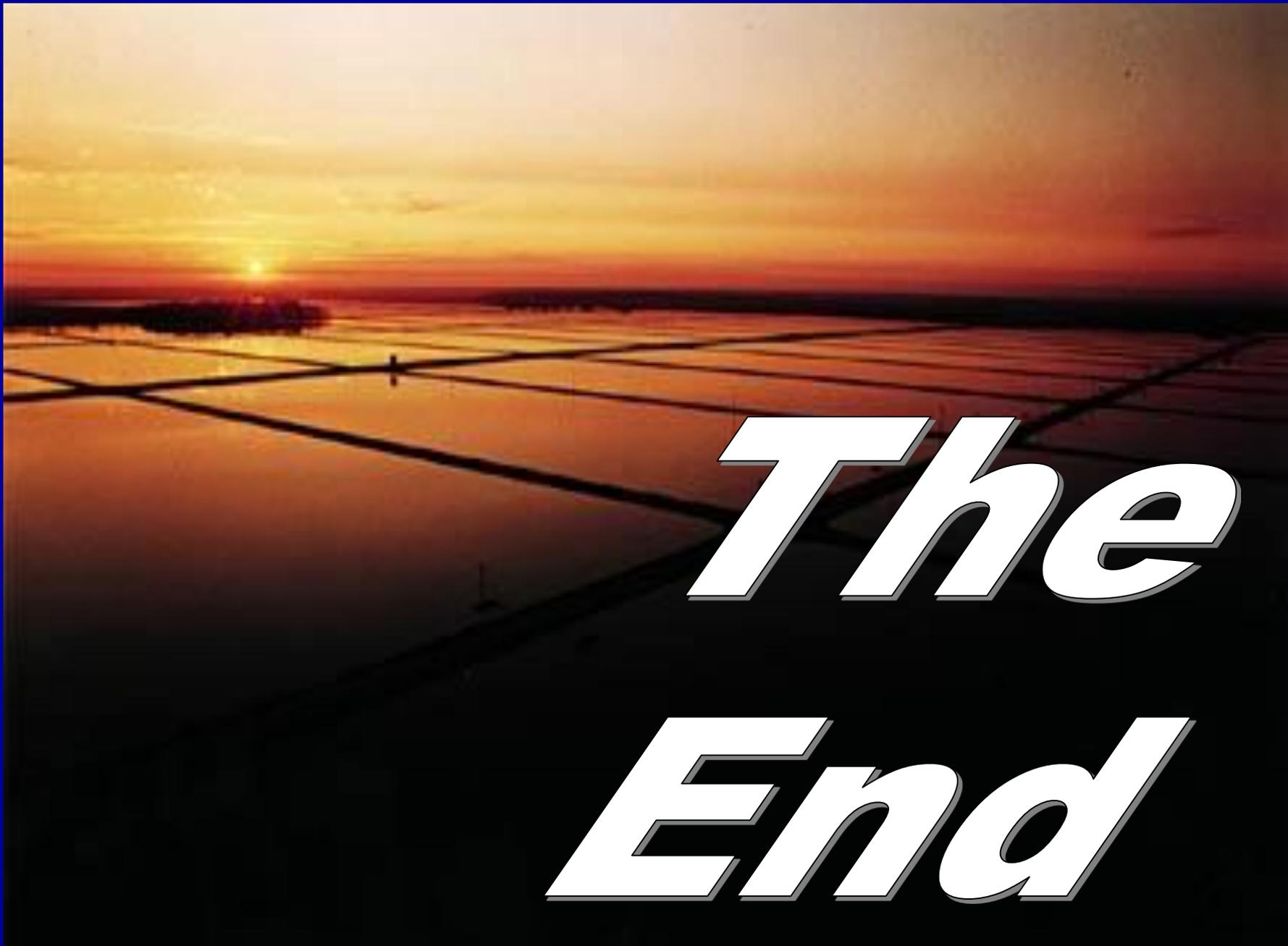
* Price to farmer for fish delivered to the processing plant

U.S. Per-Capita Consumption in 2010 By Species in Pounds

	<u>Species</u>	<u>Lbs.</u>
1	Shrimp	4.0
2	Canned Tuna	2.7
3	Salmon	1.999
4	Tilapia	1.450
5	Pollock	1.192
6	Catfish	0.800
7	Crab	0.573
8	Cod	0.463
9	Pangasius	0.405
10	Clams	0.341
	Total All Species	15.8



**EAT MORE
CATFISH**



*The
End*