

IMAGES

...THEN AND NOW

From the Indian Hill Historical Society



**Buckingham Lodge
1861**

Paddlefish Ranching at Grand Valley: The Background Story (Part I)



A dozen years ago, Village Council entered into an agreement with Big Fish Farms to permit a thousand paddlefish to be stocked in the lakes at Grand Valley Preserve. The company agreed to harvest the fish after about ten years and pay revenue to Indian Hill based on sales of the fish byproducts. This aquaculture venture has been beneficial to all involved.

The American paddlefish, scientifically known as *Polyodon spathula*, is native to the Mississippi river basin, including its tributaries (e.g. the Missouri, Yellowstone, Ohio, Allegheny, San Jacinto, Tombigbee, Alabama) and can be found in 22 U.S. states. They once were abundant, but due to overfishing, destruction of habitat, poaching, dam construction, and pollution, their numbers declined. Currently they are a protected species under state, federal, and international law. Paddlefish are related to sturgeon, and date back 125 million years, over which time they have adapted and evolved. Freshwater fish with smooth skin and a cartilaginous skeleton, their most distinctive feature is a rostrum (long nose or paddle) which is about 1/3 of their body length. Though not related to sharks, they have a tail fin resembling that of a shark. They have a body flap which protects their gills. They normally grow about 4-5 feet in length and can weigh up to 80 pounds. (The largest on record was captured in Iowa; it was 85 inches and weighed 198 pounds.) With their silver to bluish gray color, whitish bellies, and ancient appearance, they are strange and intriguing creatures. Their meat is boneless, and their eggs (roe or berries) are popularly consumed as caviar.



Paddlefish fingerling

Renee Koerner, a former assistant maître d' and cellar master at the Maisonette, decided to pursue a new enterprise in 2000. She and her husband utilized research from Kentucky State University and consulted with Dr. Steve Mims, an international authority on rearing paddlefish for caviar production. They incorporated Big Fish Farms in 2005. The Koerners control the entire process – raising, harvesting, processing and marketing the paddlefish in this relatively new industry.

The process takes 10 years. Breeding stock is used. Eggs are taken from a female, fertilized with Milt (male juice), tested for viability, and kept in a special jar that mimics the current of a river. Paddlefish only spawn in moving water, so that time in the jar is essential. Once the fish babies (fry) hatch – usually about 14 days – they are moved to tanks where they grow from ¼ inch to 18-inch-long fingerlings. They are fed daphnia at first, and next, for about 6 months, pellets. Then the fish are ready to go to larger bodies of water, where their diet is naturally occurring daphnia/zooplankton.



**Harvesting paddlefish
at Grand Valley**

In the early days, Renee Koerner of Big Fish Farms managed to talk some people into putting paddlefish in their lakes, even though it was a difficult ask. She told lake owners that she would share a portion of her profits, that she would manage the harvest, and that paddlefish have features which make them unique. They do not eat other fish – they feed on zooplankton in the water. They are not attracted to lures or bait on a hook. They do not reproduce in lakes. If not harvested, they will eventually die of old age. Because they do not compete with other fish for food, they do not impact other species. They do not upset the lake's ecosystem. The lake which might be a passive resource could be changed to a productive resource. Renee persuaded people to enter partnerships with Big Fish Farms. Several towns, housing communities, and farmers agreed.

Lakes – preferably big ones- are stocked with fingerlings. Big Fish Farms only stocks 10 -20 fish per surface acre, which is low density. And then about a decade later they are harvested. Koerner and 1 -2 assistants return with a specially equipped pontoon boat. They let out gill nets with floating buoys and leave them there for several hours. The nets have 10-inch openings which catch large paddlefish, but not most other fish. It is important to harvest them before the water gets too warm, because the females get the urge to lay eggs, and the eggs at that point are milky and soft, not firm and hard. If the roe are not up to Big Fish Farm's standards, the female is set free back in the lake where she will absorb them as nutrition and then the next year, a new crop of eggs will grow, and another attempt will be made to harvest her. Once captured, paddlefish are transferred to oxygenated tanks in the bed of a pickup truck and transported to Bethel, Ohio.

(To be continued next month)