The Horseshoe

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**Preface** 

Before I start my essay, I wish to make an editorial comment. The original title for this essay was the "Important Blue Bloods." But when I realized that you might be misled and think this is an essay on some important medical issue, like Corona virus, I must tell you that blood is probably the only medical term that I know. All other medical terms are above my pay grade. So you can be assured that this essay is not a medical essay. Hence, "The Horseshoe" was selected as the title.

When I gave my last essay to this group, I said I like to weave a tapestry during an essay. But I could not weave a tapestry with tonight's subject. So I brought a tapestry from home to show you. Clearly it is a state flag. Maybe the Dec 7th date hints at Pearl Harbor. But the oxen, a central character, is not a Hawaiian animal. So it must be some other state's flag.

## The Horseshoe

When I give a presentation to a group I try to have: (1) a connection to the group's location, (2) an economic lesson, (3) a literary subject, (4) one fact that is clearly wrong, and (5) a foreign county mentioned. Today's presentation will be different in that there is no incorrect fact, and I had to stretch to get a literary connection.

Most of you know that except for two years during WWII in which I lived in Washington State and the months of my college years, I lived in the state of Delaware until I moved to Indiana at the age of 75. When I decided to leave Delaware, I asked my friends about Indiana. First, they said you will be reunited with the Colts. I am pleased how I

worded that last comment since they said it in anger. While I have no knowledge about your health insurance, I doubt that it is good enough for you to mention the Colts when in Delaware—please remember this. The second fact about Indiana they mentioned was it was a basketball state; in fact, several mentioned that if you scored 500 or more points in your basketball career you would be included in something known as the Indianapolis 500 Society.

When I got to Indiana I reversed the question—"what do you know about Delaware?" The most frequent comment was that it was a toll booth on I-95. Several people mentioned the Blue Hens, but no-one mentioned the color of the Roosters. One person, most likely a Lilly employee, mentioned something about chemistry and DuPont, and one older man in Muncie said it is the most important state since it was the first state, and without a first state you cannot have other states to form the United States of America. Why I did not get his name, I do not know, but I related to him: he could have been a Ball State history professor. If any of your children want to be a history major, I believe they should consider going to Ball State.

Since it is clear that people in one state are uninformed about other states, I will today in this presentation try to tell you about one aspect of Delaware.

If you look at a map of the United States, you realize that Delaware is unique in that it is connected to three major water systems (Delaware River, Chesapeake Bay, and Atlantic Ocean) and from any spot in Delaware you can reach one of these water systems in less than 30 minutes. Maybe Washington State can claim three major water systems, but only a few people can get to one of them in 30 minutes. So, there must be a unique feature of Delaware that I can tell you about because of these water systems.

Let me digress and remind you that the more open water you can see in a given direction, the bigger a storm can be, and from spots in Delaware you can see water forever. In fact, a Port Penn Delaware lighthouse is the second most powerful in the world. But surprisingly, not many hurricanes hit Delaware. Why? The smaller diameter storms coming up the Atlantic Coast enter the James or Potomac Rivers, and the large diameters storms are too big to enter the Chesapeake Bay or the Delaware River, so only the medium hurricanes hit Delaware and they are few, but I remember "Connie" really well.

So, let's not look at storms, but at what opportunities water gives us other than uses in the home or farming. It might be interesting to see if Delaware and Indiana are similar or dissimilar with these water opportunities. Let's look at these opportunities. There are: swimming, rowing, boat racing, sailing, fishing (sport and commercial), and trapping (fur and non-fur bearing animals).

Starting with swimming, Delaware has nothing in the swimming arena that can be compared to the Carmel High School swimming success. But I must remind you that Baltimore—a city Delaware claims at times—is nearby and Michael Phelps is from Baltimore – so maybe the two states are equal in swimming fame.

In rowing, Delaware does have St. Andrews, with sculls and successes at international rowing events such as the Henley Royal Regatta. St. Andrews is a boarding school for grades 1 through 12 which is the favorite school of the children of U.S. diplomats when they serve abroad. But you know St. Andrews as the location where the movie *Dead Poets Society* was filmed (please note this is my literary reference). Since I am unaware of any Indiana institution with sculls, I have to admit that Delaware might be called a rowing state by Hoosiers.

Let's now look at sport fishing. What we know is that sport fisherman can *cast* better than they can *putt*, and I can tell you that in Delaware, sport fisherman have lots of political influence. Just look at all the fishing regulation that favors the sport fisherman; when to fish, where to fish, what equipment is allowed, how many and what size you can keep etc. However, I feel I must tell you about bluefish fishing in the ocean. You know that bluefish are the best tasting fish in the Atlantic and bluefish schools swim close to the Delaware beaches. When a school of bluefish swim past, it lasts about 7 minutes and the excitement on the beach for everyone (fisherman, sun-bathers etc.) is far greater than the excitement for fans during the last lap at the Indianapolis 500.

After the school has passed, the only sport fishing excitement is to see which fisherman is catching the most small sharks—and watching paint dry is more exciting. I do not know about sport fishing in Indiana lakes so I cannot compare the two states for sport fishing, but I do know that the word Lake is not in the Delaware vocabulary—it must be a four-letter word and thus you should not use it in Delaware.

Let's look now at trapping fur-bearing animals. Believe it or not there are beavers in Delaware and when they chop down trees, the trees always fall into the water. Where the tree falls is not because Delaware Beavers are great engineers—they did not attend Purdue—it is because a tree near water leans out over the water to get more sun and when cut falls in the direction of the lean. I believe you agree with me that beavers do not belong in this presentation.

But what about muskrats? That's a different story. Just go to Odessa, Delaware, every mortgage on every property was paid for by rat trapping. Muskrat fur brings a high price, and the meat is exceptionally good. The meat prior to cooking is bright-red and when cooked is a Delaware delicacy—so much so that muskrat dinners to this day are the way

volunteer fire companies raise money. You should know that I have a muskrat dinner recipe.

There is a story about the University of Delaware mascot selection—because of the importance of the muskrat to the Delaware economy and its bright red meat, some residents wanted the mascot to be "Red-Rats", but "Blue-Hens" finally was selected—I believe you know why.

I have mentioned Odessa, a town you must visit to see early American architecture. You know that Odessa came in second to Williamsburg when Rockefeller was looking for an historic town to make famous. Probably Rockefeller did not want to disrupt the muskrat economy in Delaware, but the Virginia tobacco economy needed a disruption.

I can tell you that there are many muskrat skinning contests and most often they are won by a Delaware native with times under one minute. Please note that the 'how-to skin a muskrat' on Google takes over 30 minutes.

Maybe Indiana has a fur-bearing economy, but I have not looked for it, so in this presentation Delaware is more famous.

The subject of sailing is next to be reviewed. Again, all Delaware sailors go to Annapolis for their races and the U.S. Naval Academy usually wins. I am told that Indiana sailors go to Lake Michigan to sail, and the weather usually wins; so, I conclude that neither state is known for sailboat racing. But Delaware does have the Kalmar Nyckel—a replica of the ship that brought the original Swedes to Delaware. The Kalmar Nyckel was made about 40 years ago and being a tall-ship, it goes everywhere the tall-ships go to celebrate an event—like the 4<sup>th</sup> of July. The Kalmar Nyckel has never come to Indy as neither the White nor the Wabash Rivers have invited tall-ships. But to repeat, Delaware is

proud of the Kalmar Nyckel so it is a subject you must bring up when you visit Delaware—you will feel real love if you do.

For some reason I want to mention oysters—they are not found in Delaware but there is not a single 3<sup>rd</sup> grader in Delaware that doesn't know how to use an oyster knife to open an oyster. When and how they learned would make an interesting essay, and maybe I will pursue this topic someday. All I know is that at real fancy occasions in Indiana, I enjoy the oysters as others compete for pork tidbits. You would enjoy fancy parties in Delaware as no-one even looks at the pork offerings. If the SATs only emphasized oysters, I can assure you that the entire first-year class at Harvard would be from Delaware.

Where am I in this presentation? Nothing except the Kalmar Nyckel and maybe Bluefish schools are unique to Delaware, but trapping non-fur animals and commercial fishing subjects remain, and they are the province of the Delaware Waterman.

You ask what is a Delaware Waterman?

He or maybe today she:

- a) makes a living by catching and selling things that swim in water.
- b) can navigate any type of boat that can be hauled behind a pick-up truck.

  Thus, they can read the tide charts, predict weather conditions, read depth charts, and keep any small engine running.
  - c) attended school for 12 years, and
- d) can communicate with watermen, game wardens, and water rescue teams at all times, even prior to the cell phone.

Some of my knowledge about Delaware Watermen is from first-hand observation, but my knowledge is far from complete. For example—one day a Waterman asked me if I

wanted to go with him to sell turtles he had trapped in local ponds. With eight turtles (two each in four large tubs) we drove into Maryland to the turtle place. The owner took about 15 seconds to look at our turtles after which he peeled off ten \$100 bills. (To this day I have not found a place on a 1040 form to report this income, but I assume the Waterman knows where to put the income.)

Let's review: the turtles were trapped in Delaware water without bait in large underwater cornucopia shaped nets with the small end out of the water so the turtle can breathe. I do not know how to get the turtle out of the net, and there is no "Google how-to". Since no-one knows what the turtle has been eating, it is kept for about two-weeks in the large bucket and fed corn to "flush it out." This is the secret used in Maryland, which assures consistent high-quality, consistent, good tasting meat.

What about the trip to Maryland? The location has about five acres of pens, each pen enclosed by a two-foot-high chain-link fence (another foot underground): remember, turtles cannot jump. In these pens were many turtles, clearly more than 200, and one pen contained a building the size of a one-car garage with big chimneys. I learned that this building as called the "Pressure Cooker" and used to prepare the turtles. I do not know at what temperature or pressure or for how long the turtles were prepared, but when they came out, the shell was easy to remove, and the meat fell from the bones. From other experiences, I can assure you removing the shell prior to cooking is almost impossible.

Sometime during the day, the meat in ice packages is picked up by FedEx and shipped to Boston, Chicago, Los Angeles, New Orleans and of course to Bookbinders in Philly. Clearly our eight turtles were now at the heart of the turtle industry—and there is only one heart. So much for the pens, let's look at the man's house—it is big but not a

mansion, there were three new cars in the driveway each with a different college logo on the back window, and the house looked like it was painted earlier in the day.

Since this turtle business is in a part of Maryland without any other industry, what did the other houses in town look like? They looked like they were lasted painted before the war—maybe WWI, but more likely prior to the "War of Northern Aggression."

Anyway, on this trip I learned more about the meaning of the business term monopoly than you could learn from a full-term course in a business college.

So, to repeat: If you have snapper soup in any restaurant, the snapper had been flushed with corn and pressure cooked on the Eastern Shore of Maryland.

The Delaware Waterman also goes to Maryland to catch blue crabs. If they are using handlines, which are checked every 30 seconds, they are using fish heads as bait—the best being female blue-gill heads. If they are using a trot-line, which they check every hour, they are using salted eel as bait. Crabs cannot eat eel rapidly and the brine allows you to keep the bait for the entire season. But actually, they are using pots which they attend once a day, and they are bigtime Watermen with crabbing permits and at least 200 pots.

During the crab season, which lasts several months, a Waterman with 200 pots (the Waterman never uses the word trap, it is always pot) in the water around the Y-river will have every day at least 12 bushels of crabs, half of which #1, the other #2s and a few peelers. On the way home, the Waterman will stop at the restaurants that depend on him and sell the crabs for \$50 to \$100 a bushel. Since restaurants pay with checks, their income does go onto the 1040. By the time the Waterman gets home all he has left are a few peelers and the need to go to the bank.

Maybe I am spending too much of the presentation talking about Maryland, pressure cookers for turtles, crabs at the Y-river, the U.S. Naval Academy, the greatest swimmer, and I have not mentioned the Duck Decoy Museum: but remember it is the Delaware Waterman we are learning about, and they also operate their trade in Maryland.

What else does the Delaware Waterman catch to sell? You know that in the spring Shad swim up the Delaware River to spawn. You also know Shad is mighty-good eating when cooked on oak planks in front of an open fire in a fancy restaurant and Shad-roe is better than sex (the ultimate bait for *homo sapiens*). However, Shad have a lot of bones so they must be cooked for a long time or filleted which requires 17 precise cuts. In 1990, there were three Watermen in all of Delaware that knew how to make these 17 cuts, and these three were too old to go out in boats but they made a good living during the Shad run. I do not know if anyone can make these 17 cuts today, but Google claims they have a "how-to" video.

So how do Waterman catch Shad—we know with gill-nets but *how?* These Shad only swim upstream during an incoming tide (is tide a four-letter word unknown to Hoosiers?), resting on the bottom on an outgoing tide—hence at the beginning of an incoming tide they are well rested they will fight hard to go forward and that's when the gill-nets are effective. Hence, the Waterman knowing exactly (let me repeat exactly—within 30 seconds) when the tide turns, starts placing his net about one minute before the turn and since the net was so carefully folded, they can finish placing the net about five minutes later. Of course, the Waterman does not place the net in the part of the river where the freighter travels.

With the net placed the Waterman anchors his boat and pops a beer, probably a "National Bohemian," clearly not a Coors, as 'Rocky Mountain' is a combination of words

not in the Delaware vocabulary. The beer lasts about 20 minutes, so another beer is popped. After the 40 minutes it is net pull-in time. I do not know how to remove a gilled Shad from the net—it is not easy—and Google does not have a "how-to" but from time to time a rockfish is in the net and the Waterman has a special place in the boat to store it where the game-warden will not find it. Obviously, the game-warden knows where the hiding place is so he will not look there—the game-warden knows rockfish can be in unexpected places as often one is found on his front porch.

Selling the Shad is not an issue, but again the restaurants pay by check requiring a trip to the bank.

Turtles, Shad, crabs: how do you know what is in season? You go to where the Waterman is launching his boat—the type of boat gives the answer as no Waterman would use a Shad boat for crabs or a crab boat for anything except crabs. So the Waterman has about six boats.

Often the Waterman is using his eel boat which is full of eel pots. The Waterman learned from his grandfather that eels are around the stone jetties used to protect the shoreline. Hence the Waterman puts out his pots in the afternoon along the jetties and retrieves the pots the next morning, putting the eels into big plastic buckets. Back on land he pours the bucket into the grading trough he hand-made (narrow slits at the front end and wider and wider slits as you go down the trough)—thus grading the eels by size. With the medium and large eels in the appropriate container, the Waterman drives toward the Philadelphia airport to see the middleman, who speaks little English, but a lot of German and has a lot of cash. The middleman puts the eels on the "red-eye" flight to Germany that evening. The following morning, less than 24 hours from being in the Delaware river the eels are in water-tanks in German grocery stores. By that evening here are Americans,

probably some Hoosiers, eating in fancy Germany restaurants their favorite eel dish.

Actually, records would show that the Americans and the eels were on the same "red-eye."

Digressing for a moment—it is a mystery to me as to why a Philadelphia restaurant does not serve eel—you know, "buy American!" But the Waterman got paid, as did the middleman, the airline, the grocery store etc. so Delaware eels were stimulating the world economy.

And I also have a recipe that I could share with you for how to cook eel.

Of course, by now the Waterman has sold the small eels to bait shops, so they in turn could sell the eels to sport fisherman as Rockfish bait. At times in the spring the Delaware Waterman gets so worried about the world economy that he drives-up to the headwaters of the Delaware River and with a hand-net catches the baby eels (size of a ten-penny nail) which he sells to a middleman at over a \$100/lb.—even as high as \$400/lb. for the Japanese market—thus again supporting the world economy. It is unlikely that any Hoosier is eating these eels in Japan as the Japanese reserve this specialty for themselves.

Being still interested in what the Waterman is doing one day in the spring, you go to the boat launching spot and to your surprise there are no Watermen. In fact, for almost a week there are no Watermen. Why? Should you worry about the world economy—say, call your broker and sell, or call your congressman to ask for tax cut legislation?

Actually, the Watermen have gone to the Delaware beaches to collect large female horseshoes that suddenly came out of the ocean on the full moon. What is a horseshoe? Well, it can be over 12 inches in diameter, with a leathery shell, no teeth, too many legs to count, and nine eyes. She comes ashore at the same time every year to lay eggs, and the

small male horseshoe is there for his function. Clearly, if you are a bird person you know that several species of birds plan their migration to their Canadian breeding ground so that they can refuel on the horseshoe eggs on the Delaware beaches, the halfway point. These horseshoes are prehistoric—they were friends with dinosaurs having been around when the dinosaurs first arrived. There is no evidence that they saw or heard the big bang. If anyone needs a subject for a school science paper, I strongly recommend the horseshoe.

What is obvious is that the females are egg factories but there is no meat in the bodies or the legs, so they are not human food. Still the Waterman has given up his profitable activities to collect them and he is taking them home and storing them in freezers—you should note that these freezers all have emergency generators. Delaware Power and Light might be a good stock investment, but they do have power failures and the Waterman cannot risk his horseshoes.

Okay, to the Waterman the female Horseshoe is very valuable—but why?

Ladies and gentlemen, the female Horseshoe is the ultimate bait, the Waterman's key to success, the Waterman's life blood. They are the bait for the eel pots, the eels for the Rockfish, and they are the bait for the crab pots.

In summary, the Horseshoe and the Delaware Waterman make Delaware unique, although neither is on the state flag. But if only Delaware Waterman depend on this historic creature, why did I think I should introduce this creature to you tonight? Because today everyone in the world depends on the Horseshoe. The Horseshoe is known around the world as Blue Bloods. That's Right!

The Horseshoe, sometimes called the Horseshoe Crab—but they are not crabs—have blue blood. The blue blood has unique properties. It gets gooey in the presence of viruses. Hence this blue blood is indispensable for creating vaccines like the Corona-19 virus

vaccine. Some medical researchers have indicated that this blue blood shortens the time to develop a vaccine by two to four years.

Ask yourself, would we be meeting here tonight without the Horseshoe?