

“Marine Stewardship: just do it”

By Joe Gaydos

San Juan County Marine Stewardship Celebration

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It's an honor to be here today. Thank you all for coming.

You know San Juan County is the smallest county in Washington state, but we have longest shoreline: 407 miles of shoreline or so depending on the tide cycle. I used to think we had the longest shoreline of any county in the US until I learned that Talbott County in Maryland has over 602 miles of waterfront. Now I'm not sure how much of that waterfront is freshwater or estuarine or marine, but don't worry, because you don't want to live in Talbott County. You see, they've forgotten to take care of their marine resources and their water is no longer clear, they've destroyed their oyster reefs, their blue crab fishery, and in places the shoreline has been so bulk-headed that from a boat it looks like you're in a swimming pool.

We might be the smallest county in the state, but our population is growing. In the 2000 census we were 14,077 people. This is up considerably from the 1,125 people counted in the 1873 census when the county was created. Fortunately we are the most educated population in the state. Sounds a bit like Garrison Koehler's Lake Wobegon, but we are. The 2000 census disclosed that 94% of adults 25 or over in our county have a high school degree- the highest level in the state.

But it doesn't take a high school degree to recognize that our county and its rich marine heritage are a national treasure, just ask the tourists. On an average August day, it has been reported that tourists arriving by ferry alone increases our county's population by 60%. Why? Because of our 407 miles of shoreline and the biologically diverse marine ecosystem that lies beyond that shoreline.

Species richness, or the number of species within a certain area, is one of the most straightforward ways to measure biological diversity. In the marine waters of San Juan County, the diversity of vertebrate species alone is astounding. Last summer, Emily Hallquist, a SeaDoc Society summer intern, started a species inventory for San Juan County's marine ecosystem and we have 19 mammals that depend upon our marine waters, 102 bird species, and 177 fish species.

But let's not get caught up in numbers here. Pretty soon I'll want to show you confidence intervals and histograms and that will probably bore the pants off of

you. Let's just take a few minutes and talk about some of what we call our "common" marine wildlife. You see it's the fine details about our marine resources that excite me.

- We have about 5,000 harbor seals living in SJC. That means we have 1/3 as many seals as county residents. And they are residents. They don't migrate. Their home range is small. About 5 miles. Seals are so common we often think we know them. But who knew a harbor seal can live 34 years? How about the fact that when a seal dives, it breathes out and depends on the oxygen stored in myoglobin in its tissues. Its heart rate slows from 100 to about 10 and blood is preferentially shunted from the skin and flippers and the GI tract to the heart and brain, which allows it to can dive to depths of 600 feet for up to 30 minutes. You know I had a milkshake for lunch the other day and it probably contained about 3.5% milkfat. A mother harbor seal produces milk with 40% milk fat, 10X that of a cow and that's what permits the pups to gain 25 pounds in their first month of life.
- What about the pigeon guillemot like you see on the front of this program? A resident seabird that's a northern relative of penguins. They're black with a little white in the summer and white with a little black in the winter. And when they dive to catch fish, they actually use their wings to fly under water and their orange feet serve as rudders.
- Or the rhinoceros auklets – another of the 102 marine bird species and the 2nd most abundant breeding seabird in the region. They don't breed in San Juan County, but they fly here every day from Protection, Smith, or Destruction Islands to feed and gather food for their young. In the summer evening you'll see them catch a small fish, then dive for another and another until they have 5 or 6 lined up in their bill. You see they have tiny barbs on their bill that allow them to stack up fish and dive again for another. And why are here? Because of our rich marine resources.
- Unlike the pigeon guillemot and the rhinoceros auklet and the other 100 marine bird species, you won't see a rockfish laying an egg. Their young are born live. And these fish are not worried about reproductive senescence or what people often call the ticking biological clock. This is because many species of rockfish become more fecund with age. And in a recent manuscript, scientists showed that black rockfish not only have more young, the older the female, but the more likely the young were to survive as larvae!
- I'm not sure what it is about age, but longevity excites me. I was astounded to learn that some rockfish species could live to be over 100 years. This is a fish, not a western red cedar. Well why not jump on the bandwagon. A geoduck can live to be 80 years old and a recent manuscript published in *Fisheries Bulletin* showed that red urchins in this region can live well over 100 years.

Through science and discoveries like red urchin longevity, we are continually learning how fascinating our living marine resources really are. The more we learn, the more fascinated we become. And that's what the organization I work for, the SeaDoc Society, is doing: producing new science, new information that leads to conversation and ultimately conservation.

She was raised on a small farm in Pennsylvania and best known for a book she wrote called *Silent Spring*, but many people don't know that Rachel Carson was a marine biologist too. She studied at the Woods Hole Marine Biological Laboratory and her first job was with the U.S. Bureau of Fisheries. She once wrote:

"The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction."

I really like that quote. That is really what marine stewardship is all about. It is about knowing what we have, because by knowing, we can't help but to love our marine resources and to want to sustain them.

Recognizing that, the basic tenants of place based conservation are to know, to connect, and to protect. You can't have protection without connection and people won't be able to connect without knowing. In my dream for this place I envision a day when we all of us, not just the scientists and marine biologists, recognize and know our marine resources better than we now know our corporate logos. And we watch and monitor those resources better than we now watch the weather or monitor the NASDAQ or Dow Jones Industrial average. When we know and monitor our resources like this, stewardship will come as naturally as if our lives and our livelihoods depend on it, because they do.

So, marine stewardship: just do it!

Thank you.