

## **Over 50 Years of Government Fisheries Service—Then and Now**

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Sometime ago your conference chairman Dick Johnston asked me if I would speak at this session. He said that he wanted a longtime responsible government fisheries official, if there was such a thing. I said that sounds like an oxymoron. He agreed but wanted one anyway. I thought awhile and then modestly acknowledged that I qualified. Many commercial and recreational fishermen over the years have been convinced, and publicly stated, that they thought I had moronic qualifications and was long on oxygen, or at least on hot air.

In my own mind I was convinced I qualified: “longtime”: due to my 53-year career in government at state, regional, national, and international levels, and academic fisheries activities; “responsible”: whenever anything went wrong they said I was responsible whether it was when I was Director of the Oregon Fish Commission and there was a poor Oregon Dungeness crab season, low returns to the state salmon hatcheries, or Soviets catching too many of our fish right off our coast. Or when I was Director of the National Marine Fisheries Service and allegedly seals and sea lions, protected by our Marine Mammal Act regulations, were destroying salmon catches; healthy stocks of fish were being declared threatened or endangered under our ESA declarations; or Fisheries Management Council regulations were not scientifically based as required under the Fishery Conservation and Management Act. Those are my credentials, but that doesn't necessarily mean I have anything worthwhile to say. You will have to judge that.

There is a wealth of talent on the panels speaking on fishing, processing, scientific research, management, academia, and various other industry aspects. Therefore, I will comment briefly on some of the things I have experienced in the fisheries world in the past half century from my government-oriented background. There have been monumental changes in the past 50 years in the status of stocks, who catches them, how and where they are caught, jurisdiction, budgets, management programs, involvement of constituents, environmental encroachment, the resulting impact, and the satisfaction and dissatisfaction of interested parties and what they do about it.

As background, at the national level, for many years the U.S. Bureau of Commercial Fisheries concentrated on exploratory fishing, gear development, food science, catch statistics, scientific research, and marketing, and serviced the commercial industry in a variety of ways. In the early 1970's the name was changed to National Marine Fisheries Service and with the 200 mile law in 1976, its role changed very significantly to include major responsibilities in management and enforcement. It issues more than 400 rules a year. In 1978 its annual budget was about \$150 million. In 2000 it is \$383 million and the president has requested \$657 million for 2001.

I will discuss five examples of marine or anadromous fish life, the role government has played, the results to date, and some views about the future. The examples are Columbia River salmon, Pacific halibut, marine mammals, endangered species, and marine fish.

### **Columbia River Salmon**

My first full time fisheries job was as a field biologist on the Columbia River with the Oregon Fish Commission in 1947, some 53 years ago. Even before I came, there were Indians fishing in the Columbia Basin. They had the runs all to themselves. Historians estimate their annual catch of salmon in the early 1800's at about 18,000,000 pounds. Lewis and Clark came in 1803, settlers followed, and they began fishing. The federal government signed treaties with the Indians in 1855, providing for, among other things, "the right of taking fish at all usual and accustomed places in common with citizens of the Territory."

With the Belloni and Boldt decisions in the early 1970's, and other subsequent federal court interpretations of the treaties, the Indians are entitled to catch up to 50% of the harvestable surplus of given runs at their usual and accustomed fishing locations. Further, the tribes have management authority over their own activities consistent with conservation needs. The tribes have actively exercised this authority in a variety of ways with considerable resource impact, far broader than just Indian salmon fishing on the Columbia River--essentially they have equal national sovereignty. Commercial fishing regulations for the Columbia River for a long time were made jointly by the states of Washington and Oregon, but with the court interpretations of treaty rights, the decisions are now made with active involvement of the tribes and the federal government with court oversight.

There have been gear fights almost since the fisheries began, just as now, and within commercial fishing as well as between commercial and sport, Indian and non-Indian fishing, and that is likely to continue indefinitely as long as there are not enough fish to go around. The key wording in the Oregon law back in 1947 was that any regulations must be directed to "...protect the ultimate supply..." Repeated requests for economic considerations and equating value of sport caught and commercially caught fish were answered by the Commission chairman with "Go to the legislature if you want the law changed to permit such considerations." The law now states "...protection of genetic resources shall be the priority..." Conservation is still the key but several other aspects must now be considered.

Back in 1947 the open commercial fishing season in the river for traps, seines, set nets, and gill nets was 242 days and the commercial catch was 1.5 million fish or 21.7 million pounds. The Indian harvest in 1947 was about 11% of the total commercial take. The combined salmonid runs during the 1940's varied between 1.2 and 2.4 million fish, mostly wild fish. In 1999, only gill nets were permitted and the non-Indian salmon season was 22 days in the fall only for coho and fall chinook, and the total commercial catch was 141,000 fish. The Indian harvest was 76% of the total commercial take. The estimated run sizes during the 1990's were 0.7-2.0 million, mostly hatchery fish, and in 1999 it was 979,000 fish. It is estimated that the salmonid runs originally totaled 10 to 16 million fish.

In the late 1930's, construction of federal dams on the mainstem of the Columbia River began in earnest and continued with developments on the Snake and Willamette Rivers through the 1980's with construction by private utilities in the Basin as well. Now there are 18 mainstem Columbia, and Snake and 18 Willamette dams. They present serious passage problems for upstream and downstream migrant salmonids and are major contributors to the sharply reduced abundance of salmon. Unfortunately, dam building skills and supporting justification were much more advanced than upstream and downstream fish passage knowledge and justification. The vast majority of the salmonid runs throughout the Basin have not been the same since. The government built many hatcheries as amelioration for anticipated losses, but most of the important natural runs have sharply declined or disappeared and hatchery fish have not provided near former abundance.

The non-Indian fishery has recently been focused on terminal fishing areas to harvest hatchery fish reared in net pens. Mainstem fishing gears, times, and areas have been altered to become highly selective to the target species. The Endangered Species Act impact allowances are now the foremost limitations on harvest. The Northwest Power Planning Act of 1980 required planning for future power needs in the Columbia Basin, but mandated plans for maintenance and perpetuation of the salmonid stocks as well. Since the Act's inception, over \$3 billion in various forms has been allocated to salmon considerations with relatively little rebuilding progress evident to date. It is understood that the dams were not the only causative factor in the sharp reduction in numbers of wild fish returning to the basin. Heavy ocean and river fishing has contributed. Man has adversely affected the environment in many other ways, and the ocean conditions have varied markedly during the period, significantly altering survival.

### **State and Regional Jurisdiction**

States have jurisdiction over fisheries within state waters and off their individual coasts, with the regulations largely enforced by landing laws and essentially by state authorities. The federal government claimed jurisdiction out to three, then twelve, and finally to 200 miles in 1976. The United States has been party to a few multinational conventions with broader jurisdiction for species such as Pacific halibut, Pacific salmon, Pacific tuna, whales, and fur seals with some dating back to

the early 1900's. In the late 1940's the coastal states, with authorization and sanction of Congress, formed three multistate commissions to have a more effective unified voice and to head off any potential federal takeover of fisheries management authority. This was a major step toward improving interstate cooperation and coordination of marine fisheries research and management. The Pacific States, Atlantic States, and Gulf States Marine Fisheries Commissions remain effective and influential coordinated state voices with differing authority.

### **Pacific Halibut**

Because of concern over the condition of the halibut resource and conflicts in management regulations between the U.S. and Canada, the International Fisheries Commission was formed in 1923. It was renamed the International Pacific Halibut Commission (IPHC) in 1953. When I first became the U.S. government commissioner on the IPHC in 1972, the combined annual landings by Canada and the U.S. averaged about 40 million pounds and ranged between 20 and 50 million pounds during the 1970's. Fishing seasons were usually several 18-day openings with equal length closures for deliveries and re-outfitting.

Beginning in the late 1980's the annual landings averaged about 60 million pounds with total seasons of only a couple of days. Until 1995 it was first come first served, until the quotas were taken in specific areas. With the advent of Individual Fishing Quotas (IFQ's) in 1995, the individual vessel quotas could be taken over a much broader period, with annual fishing periods up to eight months. With careful management, based on long time extensive biological and fishing fleet information, the stocks have been maintained at high, productive levels, notwithstanding the increased fleet effort and efficiency.

It should be noted that this is a single species fishery and is managed accordingly. Multi-species fisheries management is more complicated. The long term successful management of Pacific halibut jointly by the U.S. and Canada through an international convention is a classic example of how scientists and fishermen from adjoining countries can work together in their mutual best interest and maintain a very valuable resource at optimum productive levels under widely differing environmental conditions, despite enhanced effort and improved technology. Agreement between governments established the basic intent and framework.

### **Marine Mammal Protection Act of 1972**

Growing concern by environmentalists for mammals of the sea resulted in passage of the Marine Mammal Protection Act of 1972. Reported extensive incidental porpoise mortality in U.S. purse seining for yellowfin tuna in the Western Pacific and the killings of seals and sea lions in various Alaska fisheries were partial stimulants for the legislation.

No one wanted to take credit for the very controversial law as it was finally passed because it became a creature of widely diverse and conflicting input. Critical decisions on tight time schedules were required by law, irrespective of the non-availability of needed information or limited funding to obtain it. Some environmental groups were distressed at their perceived slowness of government and industry to be responsive to their desires.

On the other hand, the domestic industry felt they needed more time to realistically modify current tuna seining operations to reduce incidental porpoise mortalities yet still catch the tuna quotas, particularly when they had to compete with vessels of other nations with no incidental mammal take restrictions.

Salmon fishermen and groundfish trawlers in Alaska needed a new way to protect their catches from voracious seals and sea lions. Scientists were short of resource information and the means to collect and to formulate it into realistic regulations consistent with specific provisions of the Act, needs of the resource, legitimate concerns of the varied fishermen, and requests of other interested parties.

Another complicating factor was Congress's action in passing the Act and in so doing, preempting the existing authority of

the individual states over some of these mammals. It was a shotgun marriage with no one wanting to claim the offspring and a lack of enthusiasm for rearing it--so much for Congressional wisdom and being responsible to constituents. Continual conflicts between environmentalists, conservationists, and commercial fishermen kept government attorneys and the courts busy for years, notwithstanding government's dedicated effort to include input from widely differing sources. Much was learned by many in turning the Act into reality. General compliance and acceptance are more common, although there will always be differences.

### **Endangered Species Act**

The Endangered Species Act of 1973 was similar to the marine mammal situation in several respects. There were increased environmental concerns, examples of man's severe and harmful encroachment on nature's houses and inhabitants, extremely widely diverse factions favoring and opposing far reaching actions with almost unimaginable implications on essentially everyone. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service had the proverbial bear by the tail and no one would allow either agency to let it go.

Supporters and opponents came out of the woodwork. Lawsuits for and against federal government actions were the order of the day, and many courts so ordered. How big or small, how many or few, how widespread or localized, how reliable are the numbers, how much home space is needed, and how critical are habitat composition and conditions were some of the questions asked. Once petitions were submitted to start or to stop an action, regulations required answers that were not known. What actions should, could, or could not be undertaken while decisions were pending? And how important is associated adverse or beneficial impact? With more court decisions supporting protection, the volume of filings increases and the workload of limited staff becomes unrealistic on a realistic time frame. And it is going to get busier from several standpoints. Where did all the lawyers come from?

### **Fishery Conservation and Management Act**

As if these national natural resource legislative actions were not enough, the Magnuson Fishery Conservation and Management Act of 1976 was passed for implementation in 1977. This unilateral act by the U.S. changed the way marine fisheries would be managed all over the world forever. All other major and many minor fishing nations soon followed suit with similar declarations--some happily and others unhappily, depending on if and where their fleets fished.

Basically, the Act said the fish inside 200 miles are ours, they have to be managed on an optimum sustained yield basis with full utilization, and domestic fishermen have priority harvest rights. Further, foreign nations have to agree in writing with these conditions, obtain licenses and catch allocations, and pay various fees if they want to fish in our waters. About \$11 million was collected the first year.

At this time about 2500 foreign vessels were involved in the harvesting and processing of about 3.4 million metric tons of fish annually within 200 miles of the U.S. coast. Domestic fishermen and processors learned rapidly and there has been no foreign fishing inside our 200 miles since 1991. Eight regional management councils were formed with interested constituents and state and federal fisheries managers as the voting policy makers consistent with prescribed national standards. Management plans had to be developed for specific fisheries or stocks based on the best biological, social, economic, and environmental information. Presently there are 39 management plans in effect. Subsequently, there have been several reauthorizations with accompanying modifications of the Act.

### **Summary**

What is the difference between where we were in 1947 and before, what have we learned, where are we now from the standpoint of roles and actions of various government entities and interested constituents, and where are we going from here? Let me briefly review developments in the five areas mentioned above.

### **Columbia River Salmon**

The great river of the West, the mighty Columbia, once known for its apparently limitless salmon runs is now known in fisheries circles for its very sharply reduced and/or endangered salmon runs, billions of dollars spent in perceived less than fruitful research and facility modifications, and very controversial and expensive proposals for run betterment with little assurance of success. Man has changed this mighty river in many ways for his betterment, but in the process, inflicted irreparable damage on nature's bountiful salmon runs. Decisions were made over many years by government, with extensive, intensive, and varied constituency input, which has changed the face, use, and course of the Columbia River and surrounding basin forever. To quote that well known philosopher, Pogo, "We have met the enemy and he is us." Seldom is any given action without detriment, and civilization's treatment of this river is no exception. The salmon runs have played such a significant role in the history and culture of the area that it is important that an all out effort be made to maintain them at a realistic level. Many levels of government and private interests can and should have a meaningful role. Turf needs to be put aside for mutual benefit.

### **Pacific Halibut**

The Pacific halibut resource, fishery, and its management are in competent professional hands. There will always be differing views about relative and total abundance, catch allocation, and various regulations, but the history has been one of sound science, realistic compromise, strong user support, and fruitful public discussions. Nature has made periodic changes but man has adjusted, and both are likely to continue with governments and their respective citizens working well together.

### **Marine Mammal Act**

National government abruptly preempted state governments by seizing management control of marine mammals in 1972, largely because of intense advocacy by many environmental/conservation organizations for greater protection, particularly of porpoises, seals, and sea lions from treatment by commercial fishermen. The environmental movement was strong at the time and Congress was responsive to many of its demands. Resulting regulations became surprisingly far reaching, but adjustments from experience have been largely beneficial. Some stocks thought to be at low levels have rebounded while one or more have gotten worse as a result. There are still legitimate complaints, but they are gradually dealt with. My overall assessment is that the Act has been very useful in protecting various mammal populations, sharply increased pertinent scientific knowledge, and made the general public far more aware of and interested in marine mammals.

### **Endangered Species Act**

The Endangered Species Act will have more far reaching effects on man and his activities than any other natural resource legislation in history. The concerns about protecting living creatures and preserving their habitat are so strongly and widely held, and growing daily, that the basic thrusts will not be turned aside. Research continually conclusively demonstrates the merits of protecting living things and where they live so that man will live better because so much is shared in common. Notwithstanding many justifiable complaints with the countless requirements, the short and long term potential benefits far outweigh shortcomings. This is another on-balance winner by government.

### **Fishery Conservation and Management Act**

The FCMA unilaterally changed the way marine fisheries are and will be managed throughout the world with few exceptions, notwithstanding initial objections by the Department of Defense and the State Department. Constituents, in this case, largely

commercial fishermen, persuaded influential senators and congressmen that foreign fleets were catching more fish off our coasts than some stocks could stand and a more realistic management regime should be installed by the U.S. Billions of dollars in varied benefits have accrued to a wide array of domestic industry since implementation in 1977. Countless problems have surfaced, as would be expected when such a sweeping change is made, and many are still unresolved. A number of stocks have been overfished and are in need of severe regulatory measures for rebuilding, and that will take time. Interested members of the public are making the decisions under government oversight with far greater constituent input than before the Act. Changes will continue to be made but the framework will remain because the fundamental concepts are sound. More bullets have to be bitten by all players, but there is nothing wrong with that. Some biting is overdue.

Much has been learned by fishermen, scientists, managers, processors, legislators, interested constituents, and the general public. Fishermen have become incredibly more skillful in pursuing, finding, and catching whatever is in marine waters in which they operate. As a result, new far reaching national legislation has been implemented and the national government as well as state governments have taken a much more dominant and controlling role in shepherding the resources and the associated habitat.

Greater use is made of more of the individual fish and of more species. Many stocks are at much reduced abundance for a variety of reasons, but there is increasing national awareness and concern for this trend, and mandates for change have support from grass roots up through Congress.

New directives, authority, and its implementation are having severe social and economic impacts on countless communities, especially coastal ones. And it will become more painful in many areas before it gets better. Many years ago biology was the main consideration. Now much greater consideration is mandated for economics, society, communities, ecology, habitat, and the environment as a whole.

For a long time the participants in managing the fisheries were only government entities and the direct harvesters. Interested public occasionally read about decisions. Now a much greater portion of the public are interested, involved, and donate time and other resources to influence natural resource decisions. Laws they helped formulate now assist them in their determination to protect the environment and its inhabitants. Charitable foundations are funding many more investigations. Legal actions against fisheries regulations were relatively infrequent compared with their present numbers, and more often than not the protestors are upheld at least partially if not totally.

It is a good sign to have more than just immediate benefactors be concerned. The resource belongs to all, not just the direct users. If we want more fish for longer times, we need more meaningful authority in the hands of objective citizens with a statutory basis, implemented fairly, and with significant penalties to encourage compliance. The guidelines must be developed in public forums with wide participation. Greater funding from various sources is required to provide critically needed data for sound management. Communication and mutual trust between scientists and the users must be greatly improved. The interested public will continue to demand more meaningful consideration and involvement from government and will get it.

In my opinion, notwithstanding all of the problems encountered to date, the passage of the Marine Mammal Protection Act, Endangered Species Act, and the Fishery Conservation and Management Act has produced immeasurable progress toward rational protection, maintenance, and enhancement of natural resources and associated habitat. Countless entities are in much better condition, some are worse but actions are underway to improve those, and there is an increased international awareness of the importance of even more aggressive implementation of the various acts. Many very difficult times are ahead but the course is sound and should and will be pursued.