By Carolyn Raffensperger

Some Positive Bush Moves Help Wildlife

The Bush administration has taken two beneficial actions for the environment. This is so striking in the face of all the terrible things it is doing — from trying to open up the Arctic National Wildlife Refuge to undermining any effort to reduce climate change — that it is worth reporting in some detail.

The first of these stories is an effort to protect sharks in the Atlantic Ocean by banning shark finning, collecting more data on shark populations, changing fishing practices by reducing the number of shark hunting vessels, and developing fishing nets that do not catch sharks by mistake. The U.S. served as host to the annual meeting in November of the International Commission for the Conservation of Atlantic Tunas. ICCAT was created in 1969 to manage tuna and other large fish, such as swordfish, marlin, and mackerel, in the Atlantic Ocean. The U.S. government took the lead at ICCAT, introducing sweeping international measures to study and protect sharks in the Atlantic.

About 100 million sharks are caught annually worldwide for their meat, fins, hides, and internal organs. The demand for shark fins has dramatically increased over the past decade because shark fin soup sells for exorbitant prices in Asia. Shark finning, slicing off the fin and throwing the rest of the carcass overboard, is an egregiously destructive fishing practice.

But its not just the intentional catch that is problematic. According to the U.S. Agency for International Development's Ocean Ambassadors website, at least one shark is accidentally killed, usually by longlines set by shrimp and tuna boats, for every one that is caught deliberately. As a result, populations of some species have fallen about 80 percent over the past 10 years. At this rate, some species could become extinct within 10 years. However, a more recent study conducted by scientists at Dalhousie University estimated that 90 percent of the world's large fish — including sharks — have disappeared since 1950. Sharks are like humans, slow to reproduce and reach maturity, making recovery of over-fished stocks difficult.

The action taken before ICCAT was in fulfillment of the Shark Finning Prohibition Act, signed in 2000 by President Clinton. Section 3 of the act amended the Magnuson-Stevens Fishery Conservation and Management Act to prohibit any person under U.S. jurisdiction from (i) engaging in the finning of sharks; (ii) possessing shark fins aboard a fishing vessel without the corresponding carcass; and (iii) landing shark fins without the corresponding carcass. The act also requires the National Marine Fisheries Service to initiate discussions with other nations to develop international agreements on shark finning and data collection.

The second story is about experiments recently carried out at the Grand Canyon designed to understand and reduce the environmental impacts of the Glen Canyon dam. The dam was built in 1963, forever altering the ecology of the Grand Canyon, which is downstream. Any river is an ebb and flow of high water after storms, low water in droughts. Releases from the dam are instead controlled and don't carry the natural loads of sediment and sand. They are cold, because they come from the bottom of the impounded lake, rather than the surface water. As a result, the Grand Canyon no longer provides backwater habitat or a food web for native fish. In fact, of eight native fish species, four have disappeared. All bets are off for the endangered humpback chub, another native fish. To give some perspective on how dire the situation has become, the canyon system has lost about 93 percent of its historical sediment.

In 1984, the reservoir above the dam was full and an uncontrolled flood wreaked further havoc on a ravaged ecosystem. Research into this flood led to an environmental impact statement on the ecological effects of the dam on the downriver ecosystem. This was the first EIS completed for the dam, since the National Environmental Policy Act was not to be passed until years after the dam was completed.

This scrutiny led to passage of the 1992 Grand Canyon Protection Act, a new EIS, and then a Record of Decision issued in 1996. The EIS specified that results had to be assessed with a presumption of protection: the environment got the benefit of the doubt, not the fiscal management of the dam. The ROD had a marvelous provision in it for adaptive management. Adaptive management seeks to improve management of resources, particularly in areas of scientific uncertainty, by employing research as an iterative tool to discover consequences, refine programs on the basis of learning, and try new experiments that will further inform programmatic actions.

The first simulated flood took place in the spring of 1996, releasing 45,000 cubic feet of water per second for eight days. According to the Grand Canyon Trust, "The purpose was to try and rebuild sandbars and backwater habitats and bolster the sediment supply for eroding archeological sites." This experiment built in a new level of understanding about the ecology and geology of the canyon and set the stage for a second planned flood, which took place in November 2004. An estimated 800,000 metric tons of sediment were expected to move downstream. 50 scientists and 20 experiments in the geology, biology, and archeology of the Grand Canyon were lined up for the, well, wet run.

We can only speculate on the lessons learned for the canyon. We'll find out soon. And the Bush administration? May they learn from these experiments to be good stewards of the commonwealth.

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