

## Endless Harvest

More than two hundred years ago, Russian explorers( ) and fur hunters( ) landed( ) on the Aleutian Islands, a volcanic( ) archipelago( ) in the North Pacific, and learned of a land mass( ) that lay farther to the north. The islands' native inhabitants( ) called this land mass Aleyska, the 'Great Land'; today, we know it as Alaska( ).

The forty-ninth state to join the United States of America (in 1959), Alaska is fully one-fifth the size of the mainland 48 states combined( ). It shares, with Canada, the second longest river system in North America and has over half the coastline( ) of the United States. The rivers feed into( ) the Bering Sea and Gulf of Alaska( )—cold, nutrient-rich( ) waters which support tens of millions of seabirds( ), and over 400 species of fish, shellfish( ), crustaceans( ), and molluscs( ). Taking advantage of this rich bounty( ), Alaska's commercial( ) fisheries( ) have developed into some of the largest in the world.

According to the Alaska Department( ) of Fish and Game (ADF&G), Alaska's commercial fisheries landed( ) hundreds of thousands of tonnes of shellfish and herring( ), and well over a million tonnes of groundfish( ) (cod( ), sole( ), perch( ) and pollock( )) in 2000. The true cultural( ) heart and soul of Alaska's fisheries, however, is salmon. 'Salmon,' notes writer Susan Ewing in The Great Alaska Nature Factbook( ), 'pump( ) through Alaska like blood through a heart, bringing rhythmic( ), circulating( ) nourishment( ) to land, animals and people.' The 'predictable( ) abundance( ) of salmon allowed some native cultures to flourish( ),' and 'dying spawners( )\* feed bears, eagles( ), other animals, and ultimately( ) the soil itself.' All five species of Pacific salmon—chinook( ), or king; chum( ), or dog; coho( ), or silver( ); sockeye( ), or red; and pink, or humpback( )—spawn( )\*\* in Alaskan waters, and 90% of all Pacific salmon commercially( ) caught in North America are produced( ) there. Indeed, if Alaska was an independent nation, it would be the largest producer of wild salmon in the world. During 2000, commercial catches of Pacific salmon in Alaska exceeded 320,000 tonnes, with an ex-vessel( ) value of over \$US260 million.

Catches( ) have not always been so healthy. Between 1940 and 1959, overfishing( ) led to crashes( ) in salmon populations so severe( ) that in 1953 Alaska was declared( ) a federal( ) disaster( ) area. With the onset( ) of statehood( ), however, the State of Alaska took over( ) management of its own fisheries, guided by a state constitution( ) which mandates( ) that Alaska's natural resources be managed on a sustainable( ) basis. At that time, statewide( ) harvests( ) totalled around 25 million salmon. Over the next few decades average catches steadily increased as a result of this policy of sustainable management, until, during the 1990s, annual harvests were well in excess of( ) 100 million, and on several occasions( ) over 200 million fish.

The primary( ) reason for such increases is what is known as 'In-Season Abundance( )-Based Management'. There are biologists( ) throughout the state constantly monitoring( ) adult( ) fish as they show up( ) to spawn. The biologists sit in streamside( ) counting( ) towers, study sonar( ), watch from aeroplanes( ), and talk to fishermen( ). The salmon season in Alaska is not pre-

set( ). The fishermen know the approximate time of year when they will be allowed to fish, but on any given day, one or more field biologists in a particular( ) area can put a halt( ) to fishing. Even sport fishing can be brought to a halt. It is this management mechanism( ) that has allowed Alaska salmon stocks( )—and, accordingly( ), Alaska salmon fisheries—to prosper( ), even as salmon populations in the rest of the United States are increasingly considered threatened or even endangered.

In 1999, the Marine( ) Stewardship Council ( )(MSC)\*\* commissioned( ) a review( ) of the Alaska salmon fishery. The Council, which was founded in 1996, certifies( ) fisheries that meet high environmental standards( ), enabling( ) them to use a label ( )that recognises( ) their environmental responsibility( ). The MSC has established a set of criteria( ) by which commercial fisheries can be judged( ). Recognising the potential benefits of being identified as environmentally responsible, fisheries approach( ) the Council requesting to undergo( ) the certification process. The MSC then appoints( ) a certification committee( ), composed( ) of a panel( ) of fisheries experts, which gathers( ) information and opinions from fishermen, biologists, government officials( ), industry representatives( ), non-governmental organisations( ) and others.

Some observers( ) thought the Alaska salmon fisheries would not have any chance of certification( ) when, in the months leading up to( ) MSC's final decision, salmon runs throughout western Alaska completely collapsed( ). In the Yukon and Kuskokwim rivers, chinook and chum runs were probably the poorest since statehood; subsistence( ) communities throughout the region, who normally have priority( ) over commercial fishing, were devastated( )

The crisis( ) was completely unexpected, but researchers believe it had nothing to do with impacts( ) of fisheries. Rather, they contend( ), it was almost certainly the result of climatic( ) shifts( ), prompted ( )in part by cumulative( ) effects of the el nino/la nifia phenomenon( ) on Pacific Ocean temperatures, culminating( ) in a harsh winter in which huge numbers of salmon eggs were frozen. It could have meant the end as far as ( )the certification process was concerned. However, the state reacted quickly, closing down all fisheries, even those necessary for subsistence purposes.

In September 2000, MSC announced( ) that the Alaska salmon fisheries qualified( ) for certification. Seven companies producing Alaska salmon were immediately granted( ) permission( ) to display the MSC logo on their products. Certification is for an initial period of five years, with an annual review to ensure that the fishery is continuing to meet( ) the required( ) standards.

\* spawners: fish that have released eggs

\*\* spawn: release eggs

\*\*\* MSC: a joint venture between WWF(World Wildlife Fund) and Unilever, a Dutch-based multi-national

By manning