

Fish and Wildlife



Noteworthy:

- As the risk of extinction increases, a species moves from being classed as sensitive, to may be at risk, to at risk.
- The swift fox and ten other species are “at risk” in Alberta., including wood bison.
- Woodland caribou, which once ranged over 2/3 of Alberta, are also considered at risk.
- Grizzly bears, once prolific across Alberta, are extinct on the Prairies and vulnerable elsewhere. They are designated “maybe at risk.”
- The Alberta government has red, blue and yellow lists of species that, respectively, are at risk, may be at risk or require management to prevent their decline.
- 50% of amphibians and 38% of reptiles are on the red or blue lists.
- Loss of habitat is the main reason for species decline.
- One quarter of fish species are at risk.
- Over-fishing is the main cause of fish stock depletions.
- The peregrine falcon is considered at risk

Fish and Wildlife in Alberta: How Much?

One-quarter of Alberta wildlife species are on the government’s “red,” “blue” or “yellow” lists, which means they are at risk or may require special management or habitat protection to prevent their long-term decline. Loss of grasslands to agriculture has endangered the swift fox, burrowing owl and sage grouse. Forest fragmentation and human disturbance have

affected large “keystone species” including the woodland caribou and grizzly bear whose numbers are far below historic levels and whose long-term sustainability is uncertain. Various birds, from tiny warblers to the trumpeter swan, are at risk as are some frogs, toads and snakes. One-quarter of fish species are at risk, due mainly to over-fishing. Bull

trout, walleye, northern pike and perch have been seriously depleted and are subject to management plans, including “catch and release” and fishing bans. Despite government attempts to restock depleted fish populations, the number of anglers in Alberta has declined. By 2000, the average number of fish kept per angler was 15.5, compared to 40 in 1980.

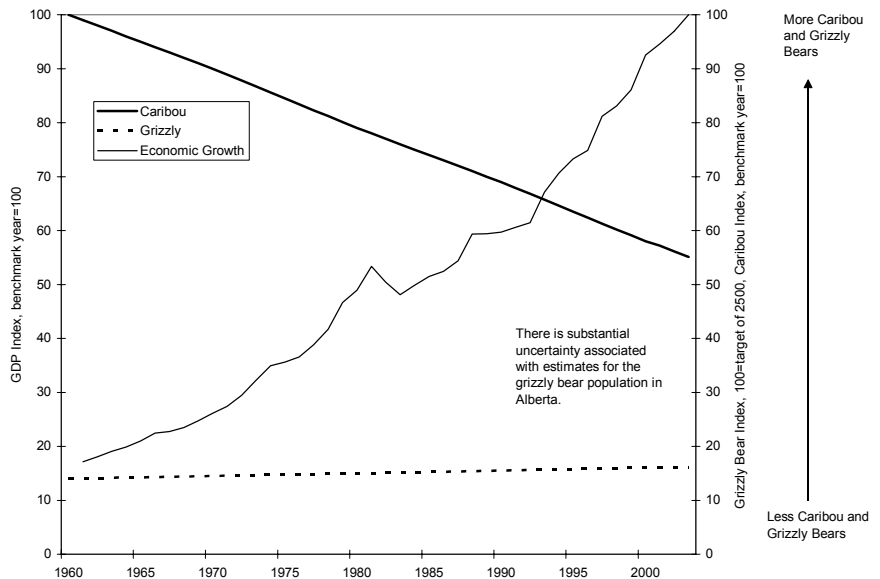
Decline in Alberta’s Commercial Fish Harvest, 1987 to 2003



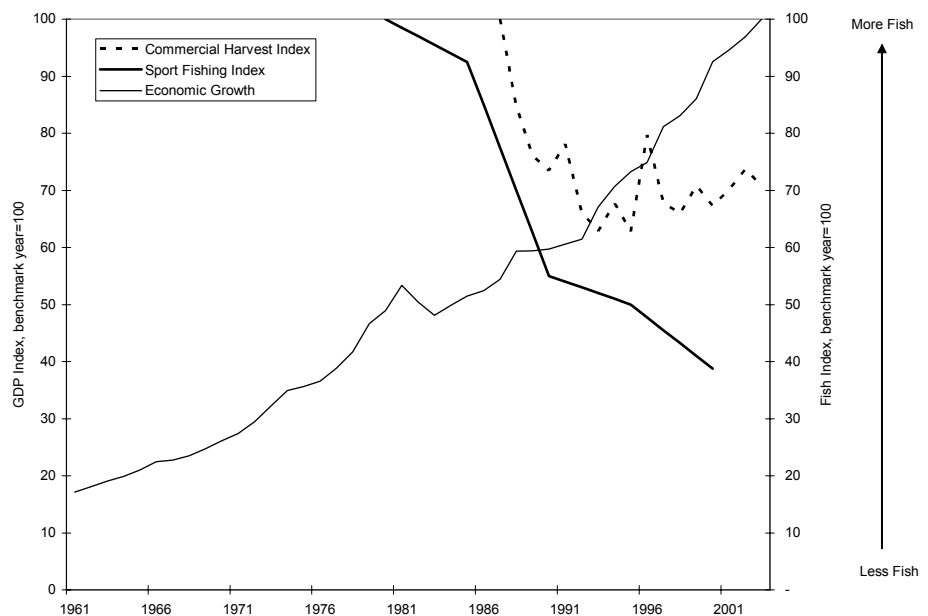
So What?

Life is priceless. Already, too many species in Alberta are at risk. The woodland caribou population has declined and grizzly bear numbers are uncertain, making it difficult to show exact trends on a chart. We need to reduce human impacts and protect habitat for vulnerable species. Alberta residents value nature highly, spending \$1.2 billion (1998\$) on nature-related activities in 1996, 20% more than in 1981. Yet the annual amount spent on sport fishing declined by 25% between 1985 and 1995 due to a decline in fish stocks. Revenues from commercial fishing have fallen by 50% since 1987. These are warnings to those who take nature for granted. While the economic values of fish and wildlife are reflected in the GDP, many would argue that their intrinsic value is far greater. Research indicates a "willingness to pay" of between \$46 and \$200 a year per Albertan in additional taxes to ensure sustainable caribou populations; \$43 for a program to sustain trout; and \$28 for a grassland/burrowing owl program. Annual losses in commercial fishery revenues have been incurred since 1987. The direct annual cost to the economy was \$2.2 million (1998\$) in 1999. Between 1985 and 1995, recreational fishing expenditures declined in each five-year survey. Relative to the ten-year average between 1980 and 1990 (\$383 million, 1998\$), the annual expenditures in 1995 decreased by \$51.5 million (1998\$). Assuming the downward trend continued, the lost revenues in 1999 would be \$93.4 million. However, if we compare 1995 with the peak year of 1985, the loss is \$106 million and if we assume that the same rate of decline has continued to the present day, the loss is \$148 million.

Alberta's Keystone Species Index



Commercial and Sport Fishing in Alberta — Index



On the index for woodland caribou, 100 is the estimated population in 1960, while for grizzly bears it is set at a target of 2,500 bears. This is higher than the government target but may still be low for long-term sustainability. On the fishing index, the benchmark of 100 is the number of fish kept by anglers in 1980, while 1987 is taken as the benchmark year for commercial fishing, with zero as no fish harvested.

\$2.2 million for commercial fisheries, \$51.5 to \$145 million for recreational fisheries, loss of wildlife unknown