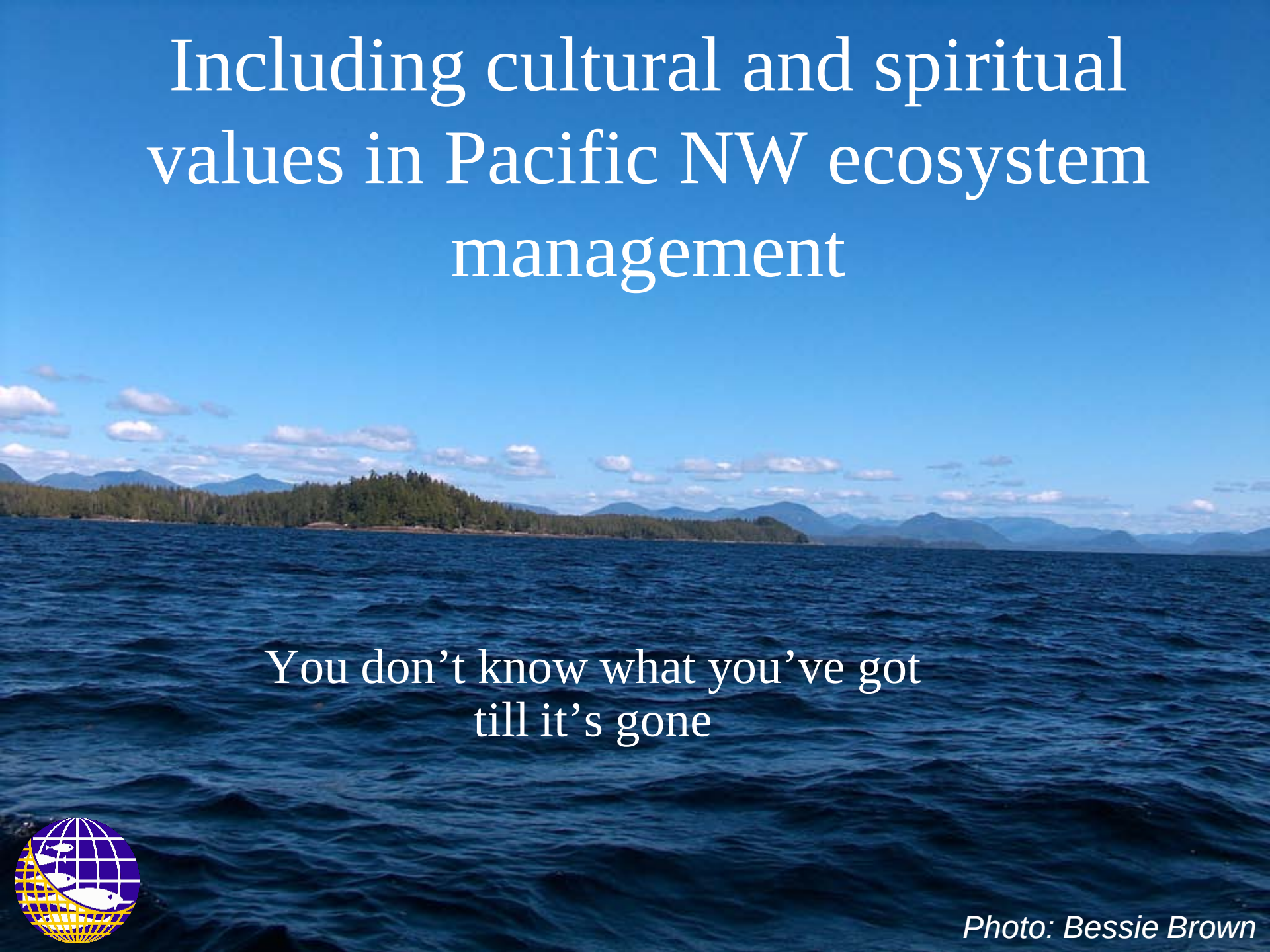
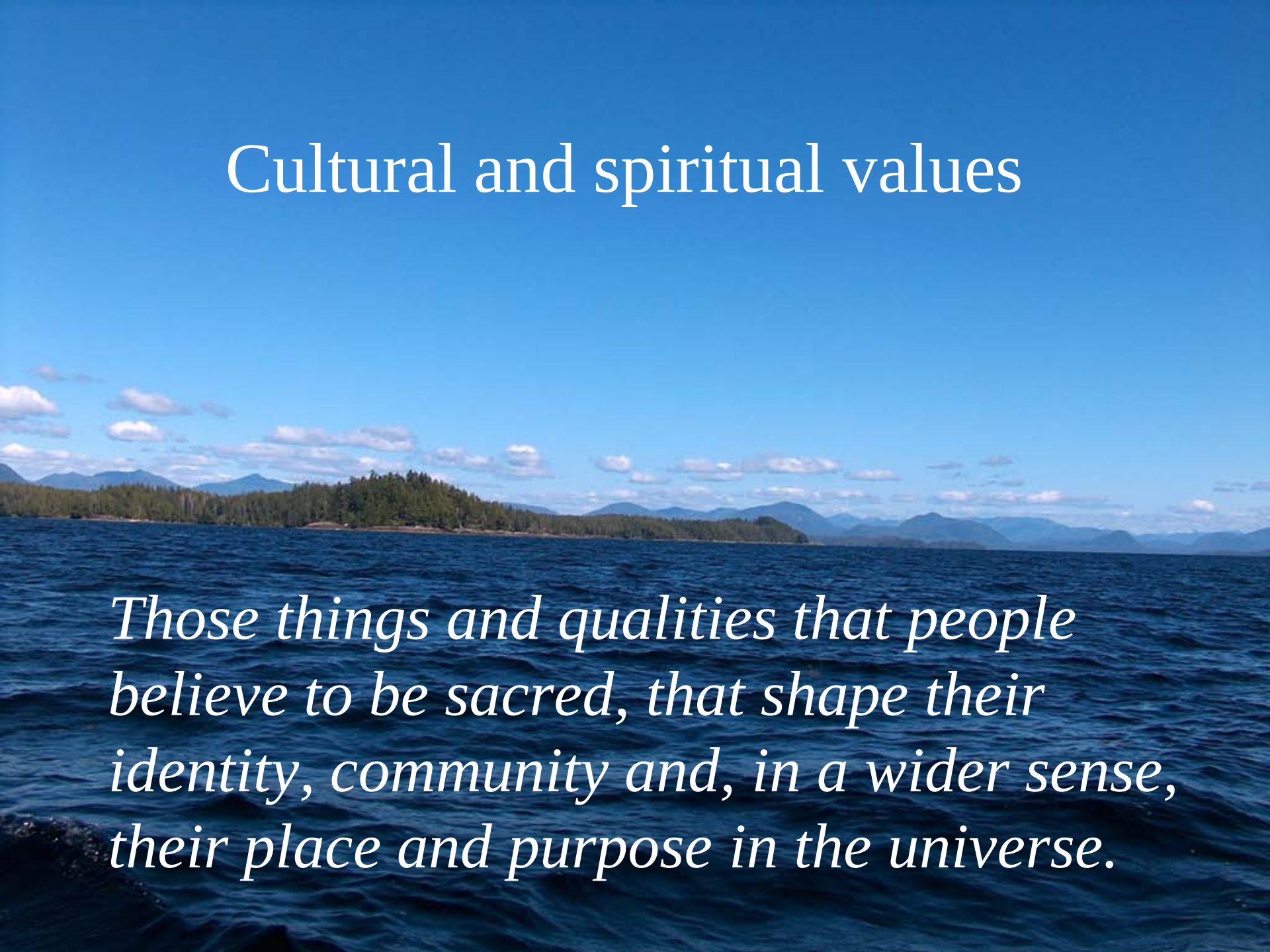
Including cultural and spiritual values in Pacific NW ecosystem management



You don’t know what you’ve got
till it’s gone

Photo: Bessie Brown

Cultural and spiritual values

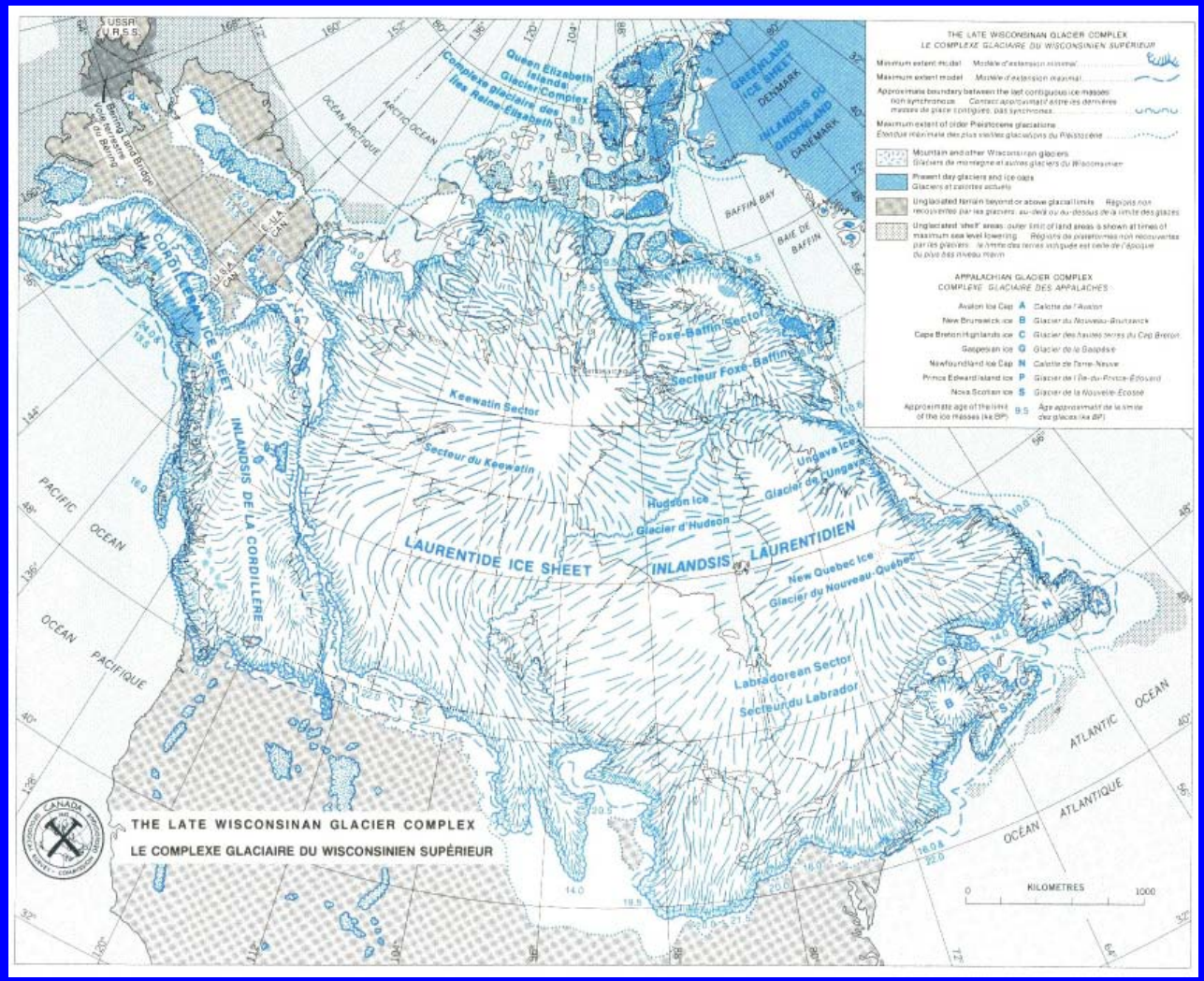


Those things and qualities that people believe to be sacred, that shape their identity, community and, in a wider sense, their place and purpose in the universe.

Outline

- Pacific Northwest 12,000BCE → 1750AD;
  - Indigenous knowledge and wealth;
  - Instrumental *and* intrinsic value.
- Declining value of fisheries 1750 → present;
- Revaluing ecosystems / *total economic value*;
  - Over-reliance on $$$ equivalents;
  - Cultural and spiritual values not well represented;
  - Future generations not well served.
- Including cultural and spiritual values…

12,000 BCE, Pacific Northwest covered with thick ice.

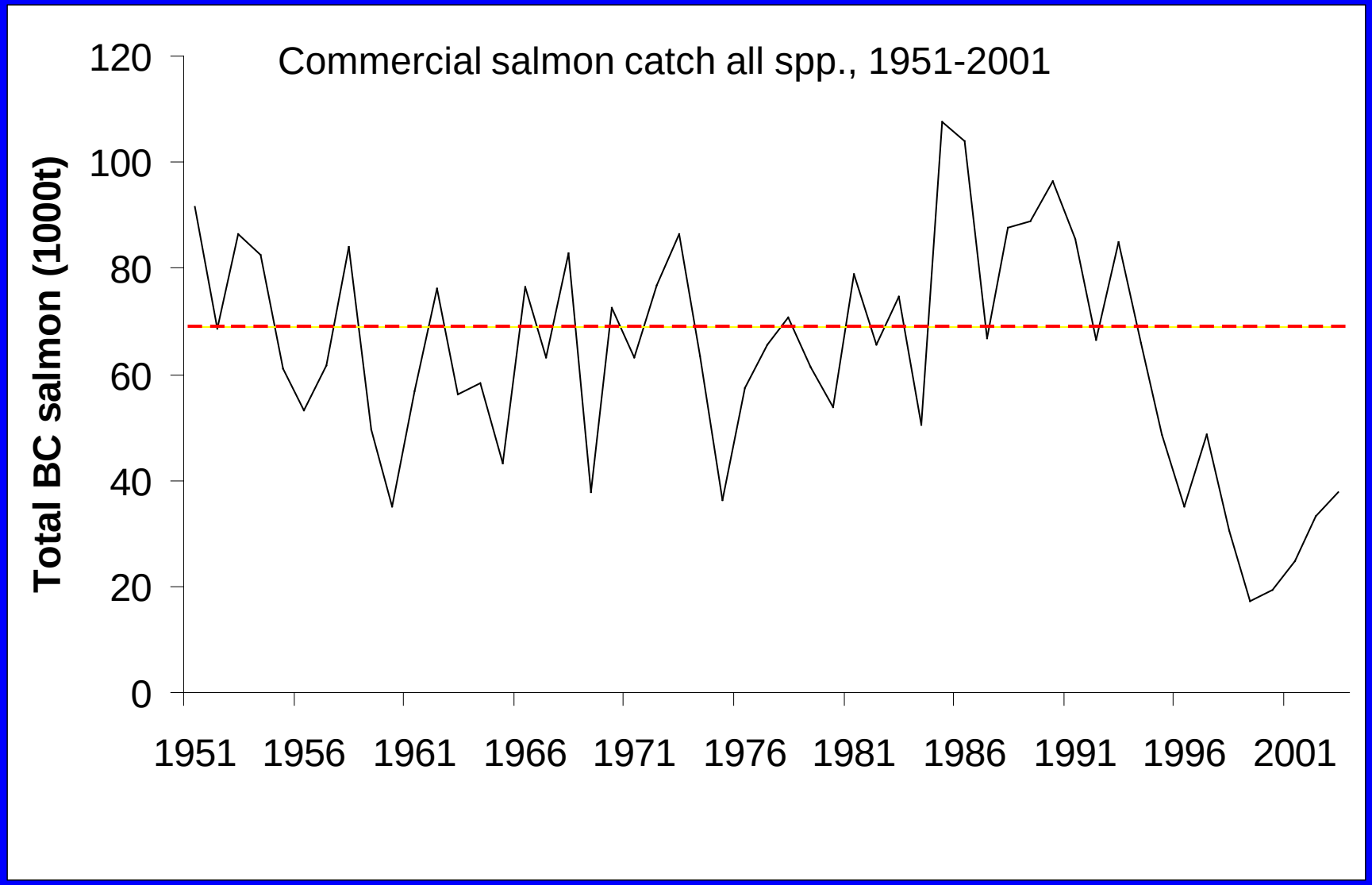


http://euclid.dne.wvfibernet.net/~jvg/Env105/Pleistocene_Glaciation.jpg

In just 12,000 years...

- >10,000 Pacific salmon populations;
- An entire rainforest ecology;
- Complex and rich Aboriginal cultures;
- Able to extirpate salmon runs ~3k years ago;
- Mistakes likely underlie teachings about dire consequences of greed, waste and disrespect;
- Transplants and selective harvest to increase abundance, > food security, > complexity.

300,000 people = 69,000t of salmon



Not just salmon…

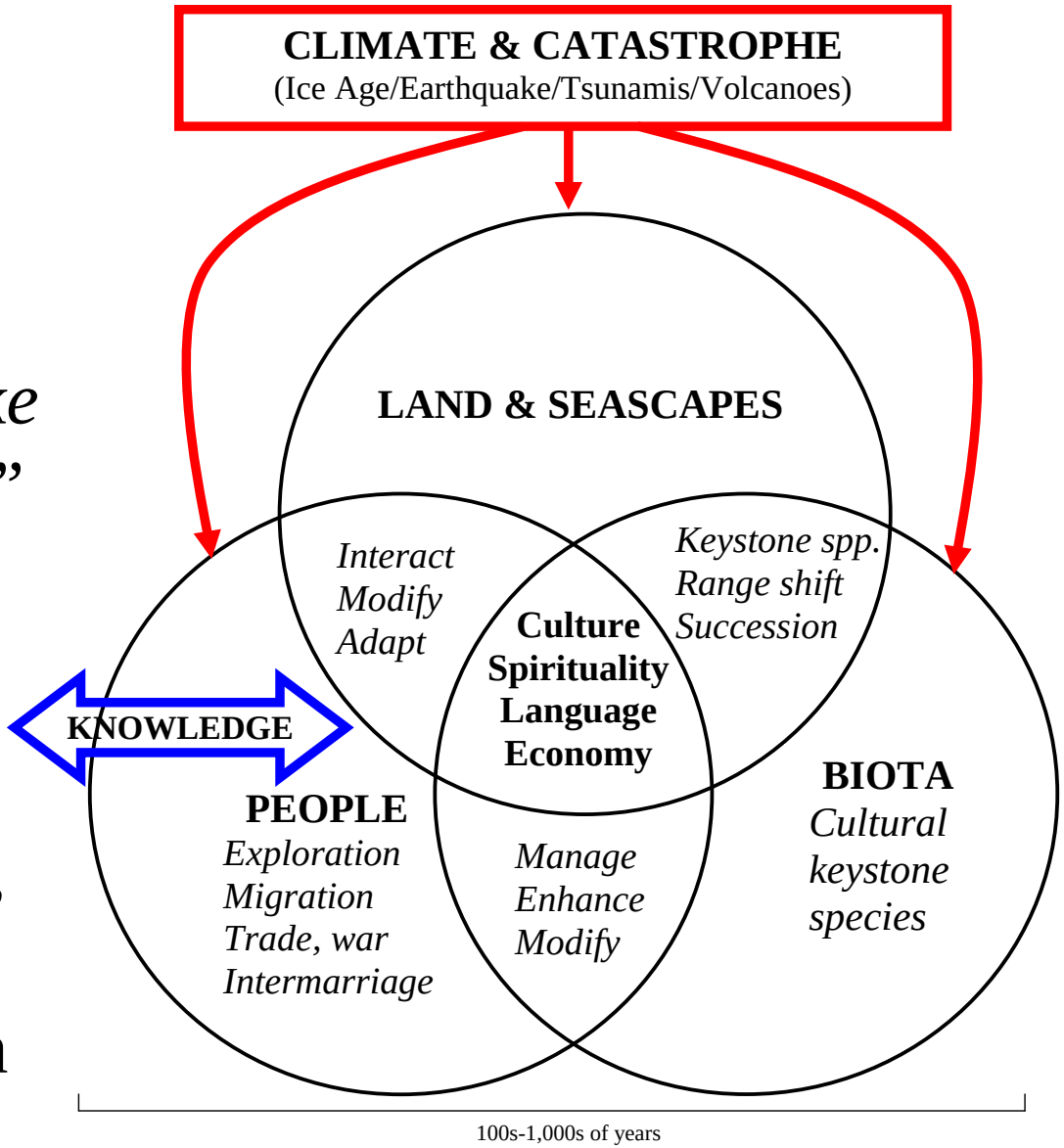
- ‘Clam gardens’ extended productive beach areas;
- maximized the productivity of plant foods and materials;
- Many other marine and terrestrial spp.

Photo: John Harper

The First ‘Inconvenient Truth’

“Different cultures make different human beings” (Davis 2003).

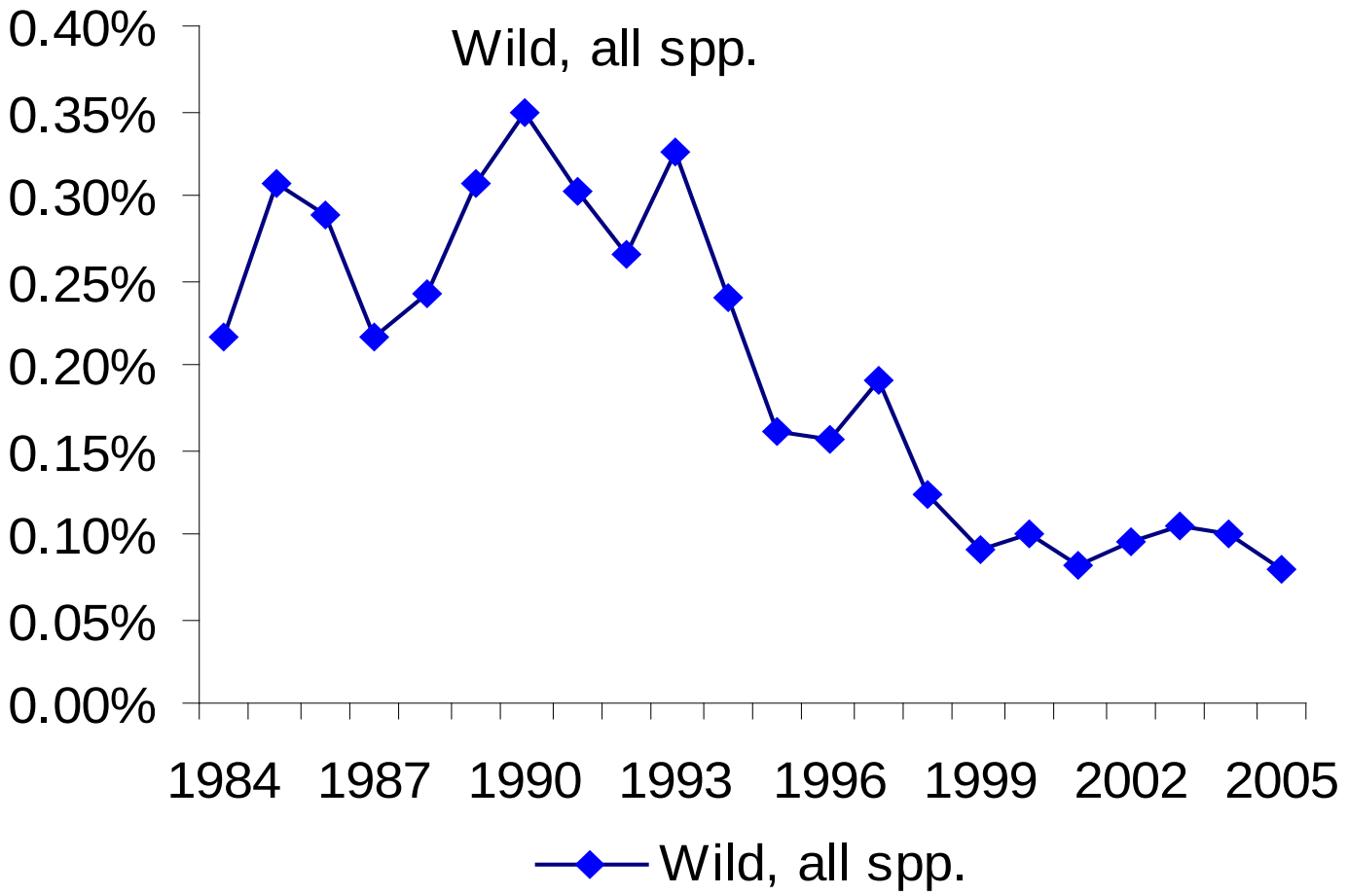
We are beginning to understand how people, environment and biota shape each other (Mann 2005).



Interaction between people, territory, biota and ‘surprise’ (Hollings 1996).

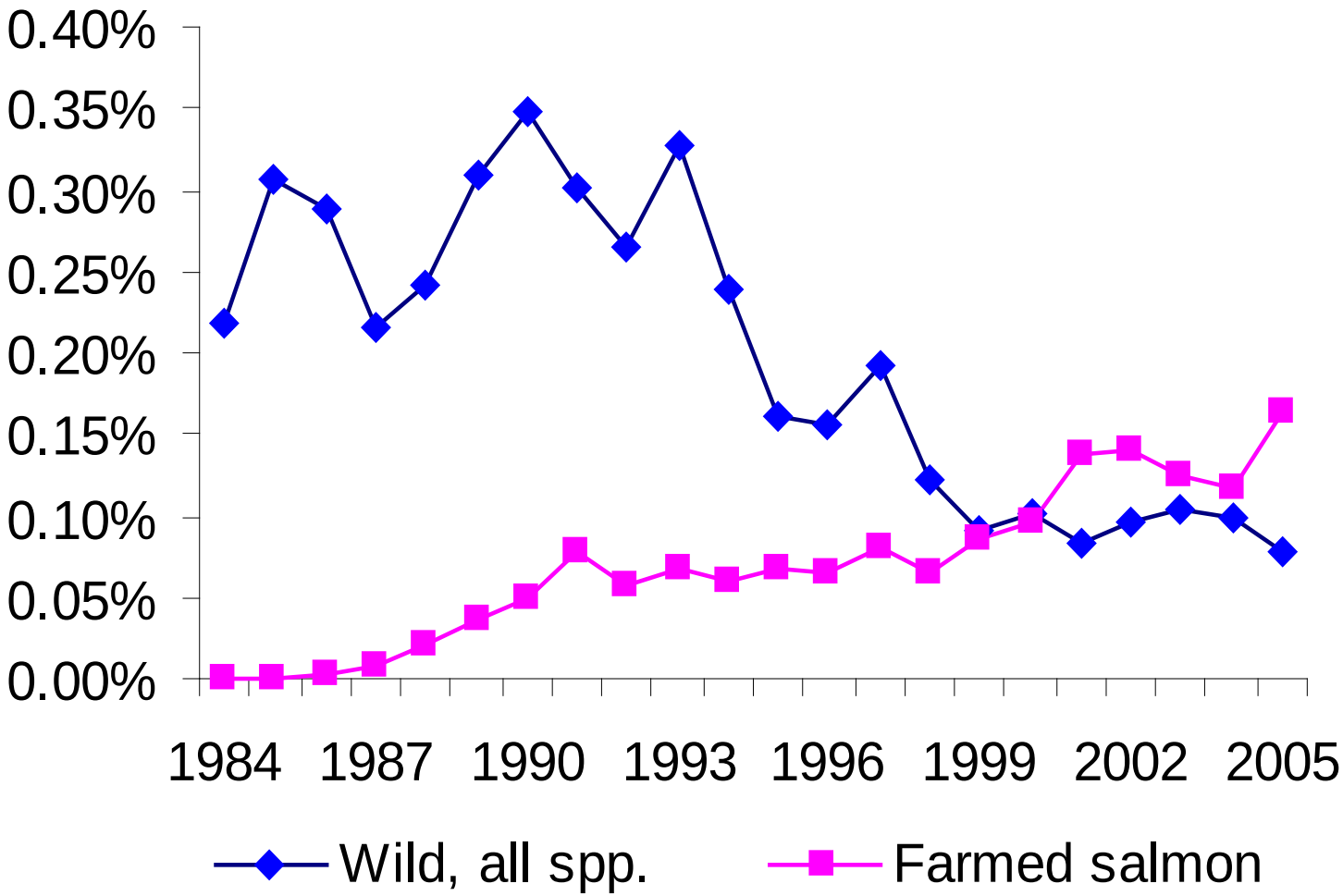
Fisheries – the Lion's share of the pre-contact economy…

Commercial fisheries as % of BC GDP



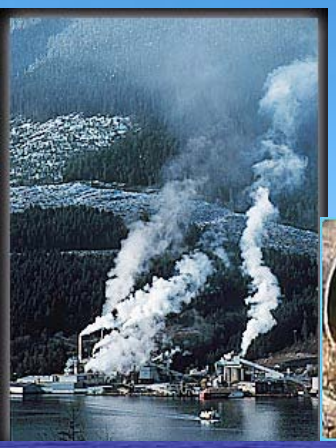
Source: BC Stats and Statistics Canada.

Add farmed salmon…



Source: BC Stats and Statistics Canada.

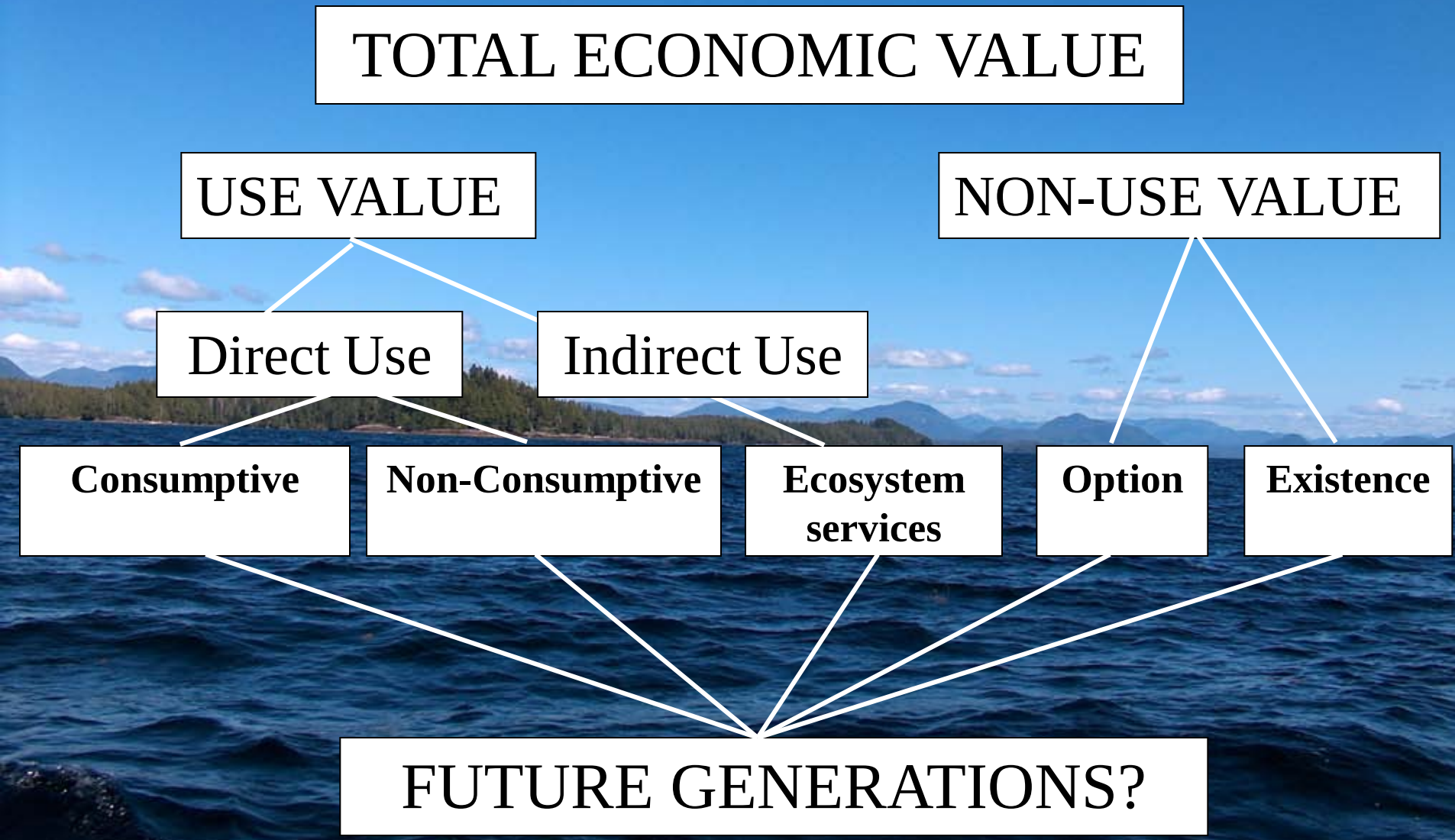
Undervaluing ecosystems is now the greatest threat to sustainability



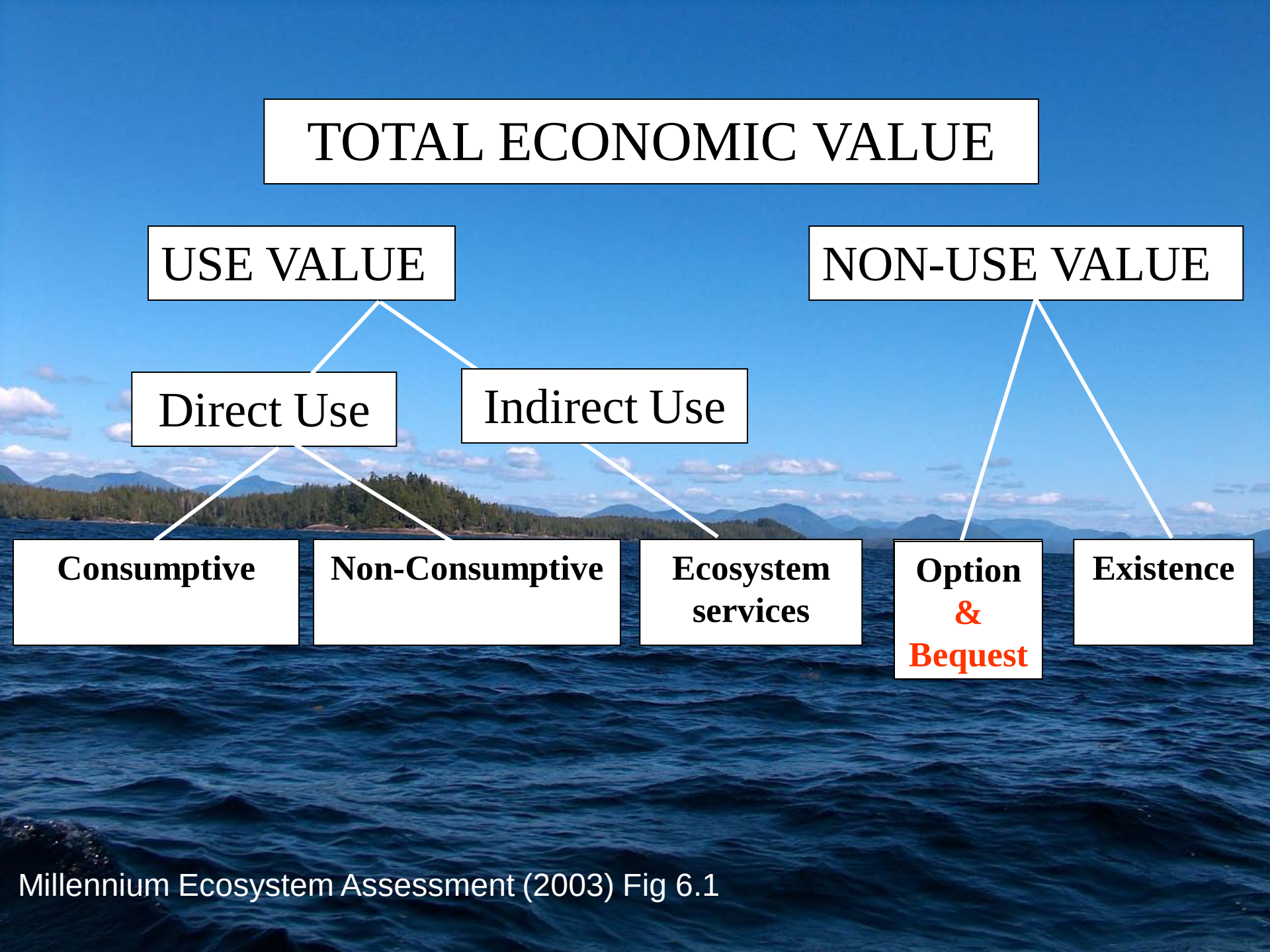
Integrated Management under Canada's Oceans Act puts depleted systems on this game board…

$110 bn

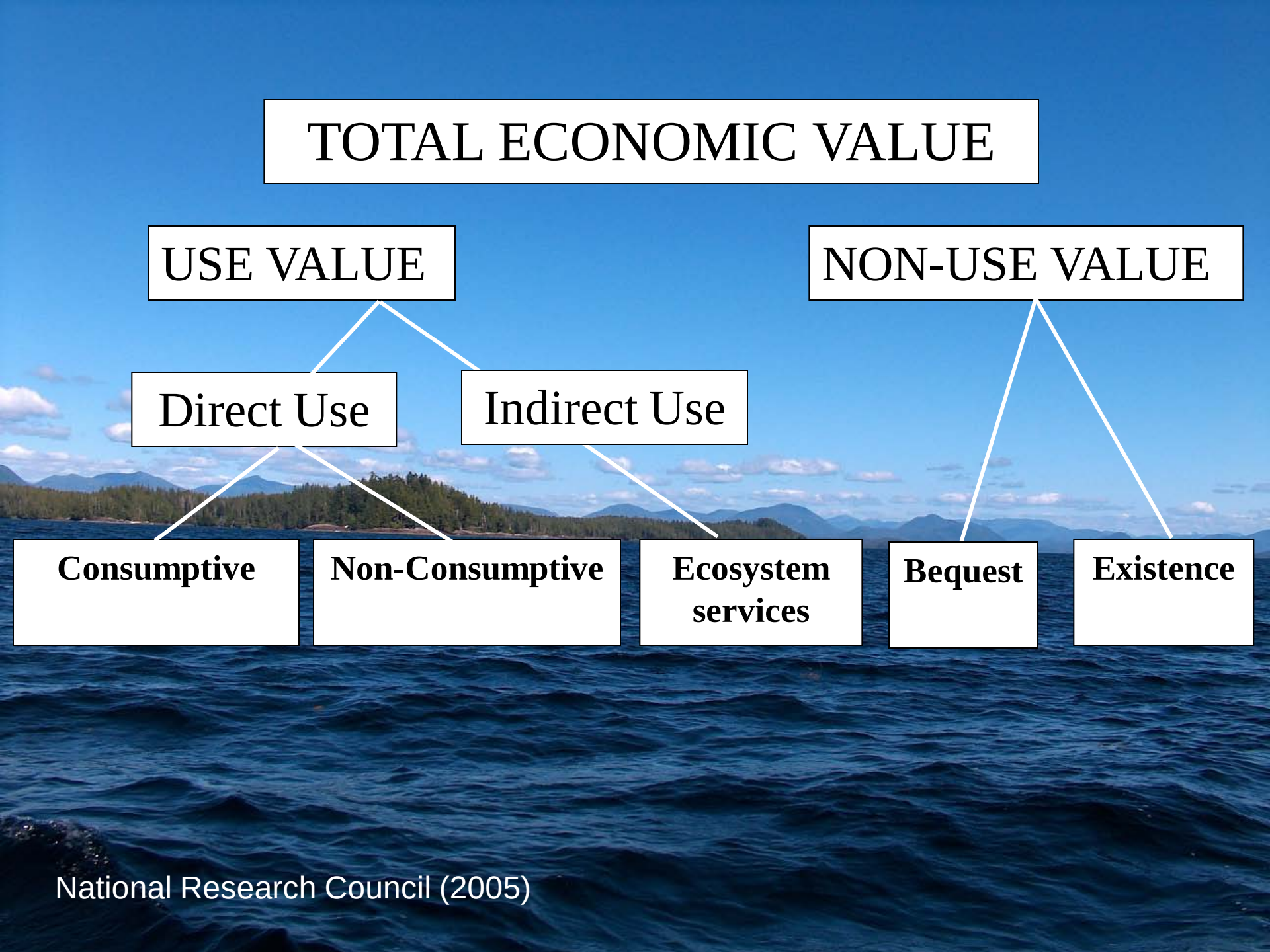
Whole ecosystem valuation



Bishop (1998)



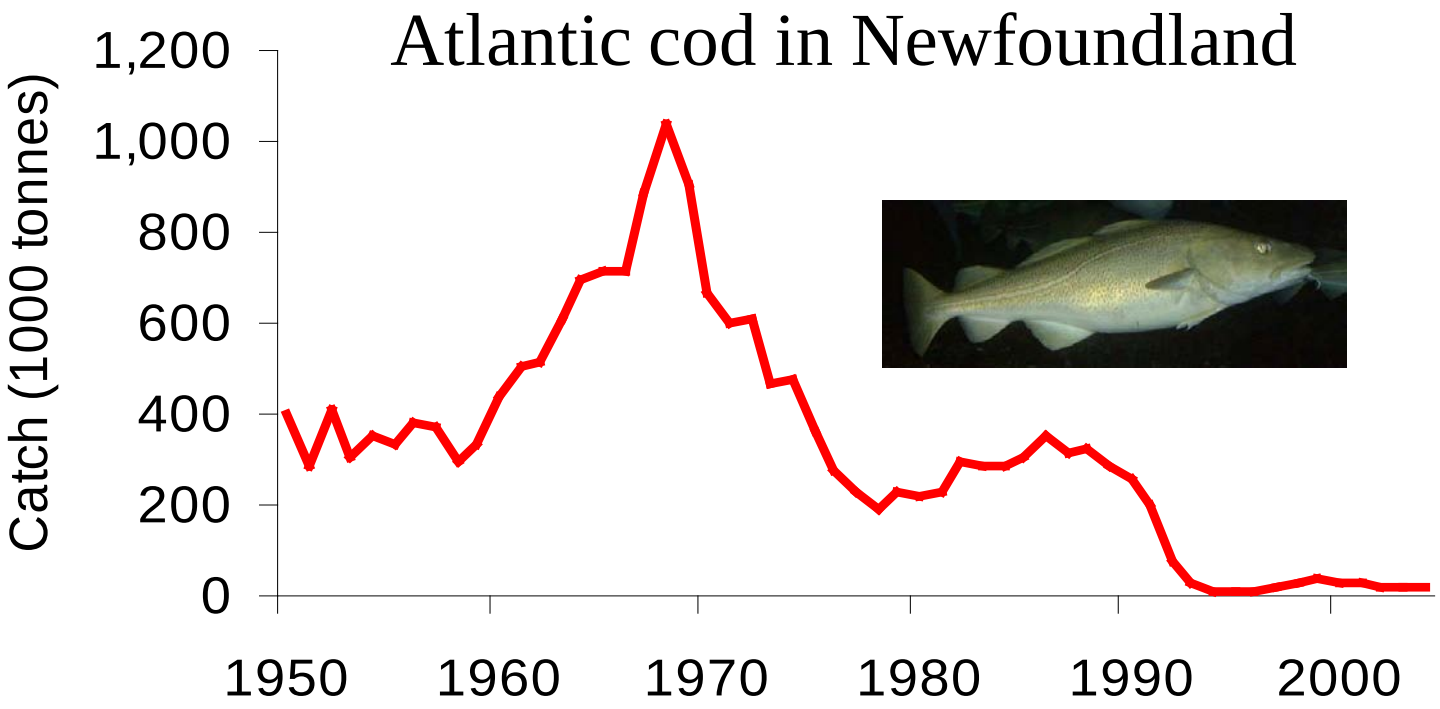
Millennium Ecosystem Assessment (2003) Fig 6.1



National Research Council (2005)

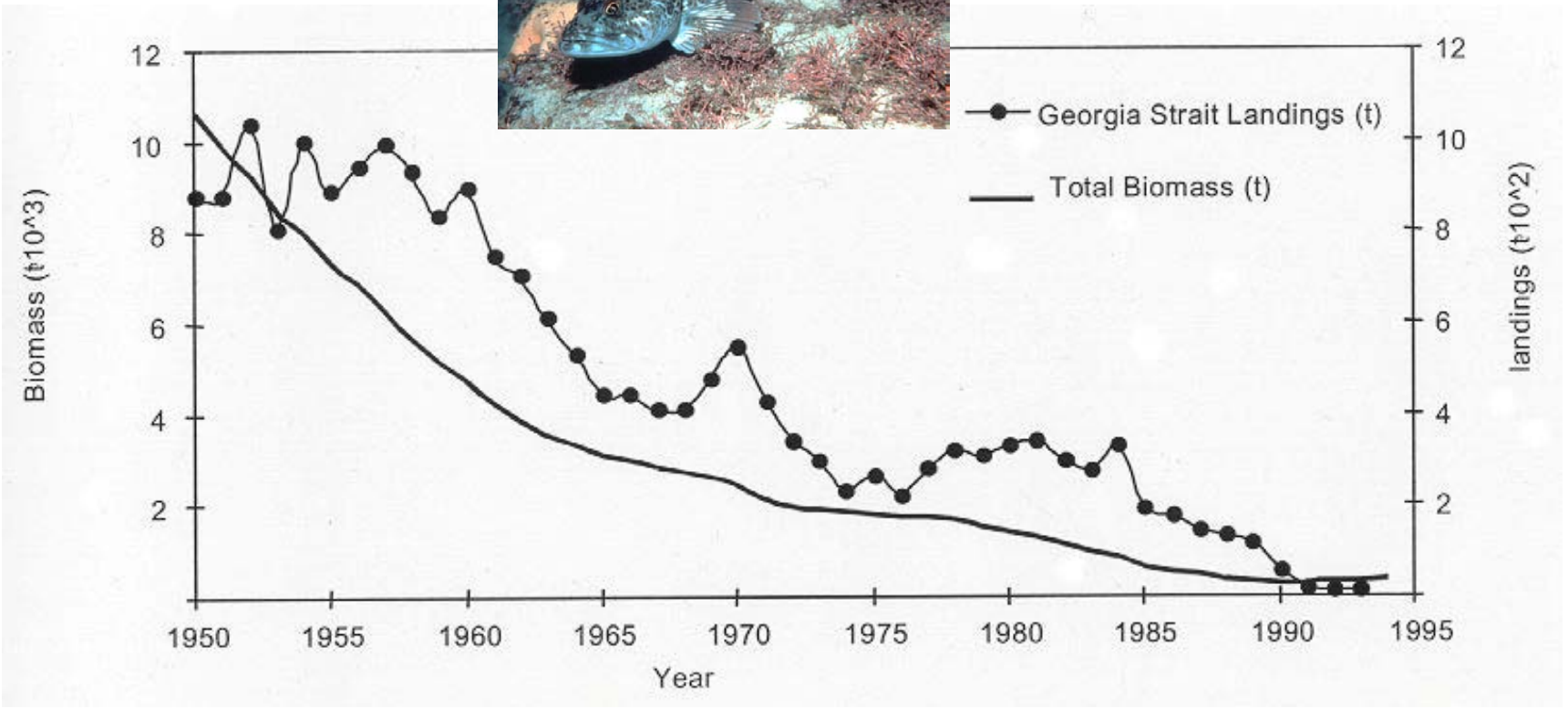
Bequest value…

- What were past generations willing (or indeed able) to ‘bequeath’?



Source: www.seaaroundus.org

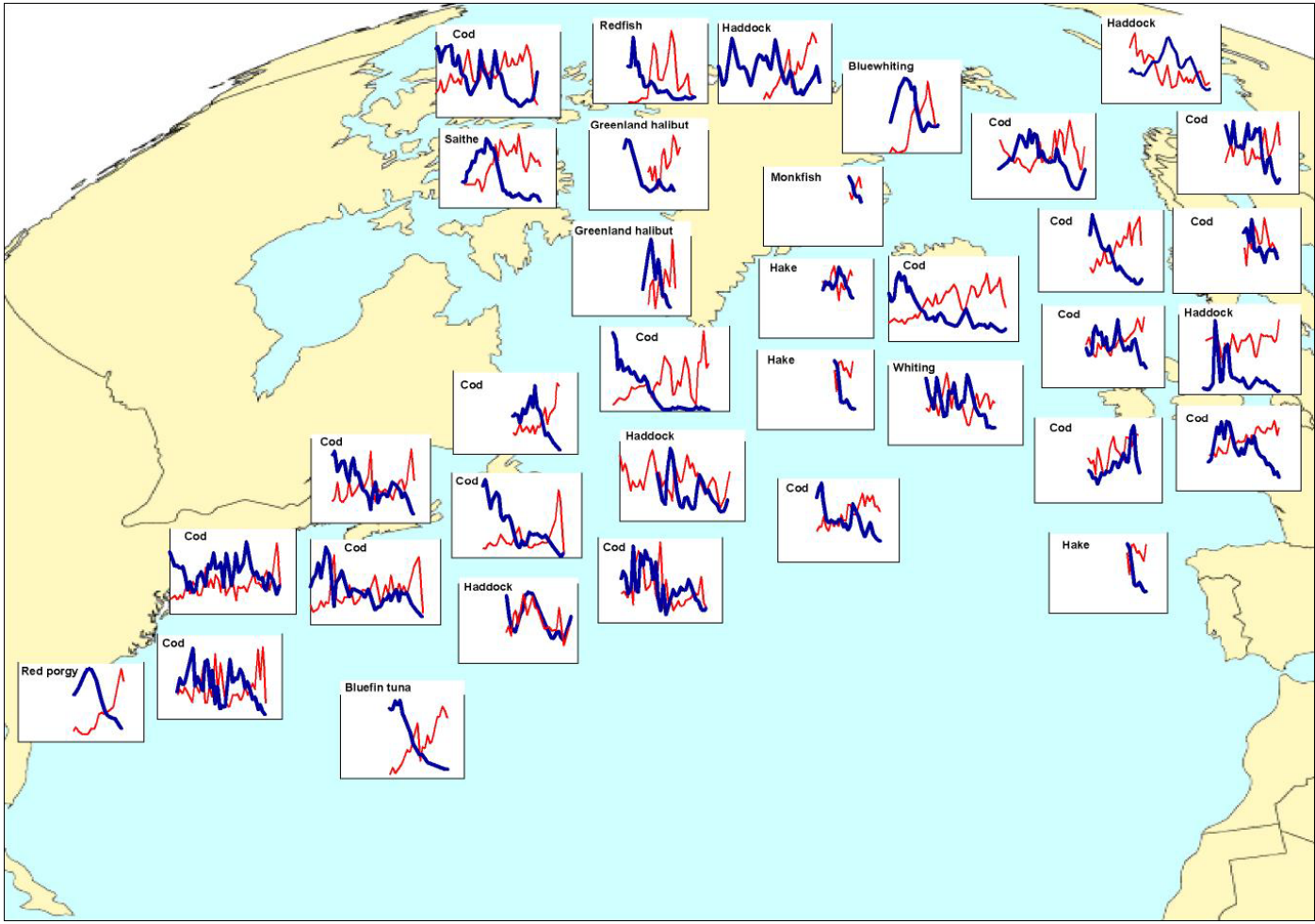
Lingcod in Georgia Strait, BC…

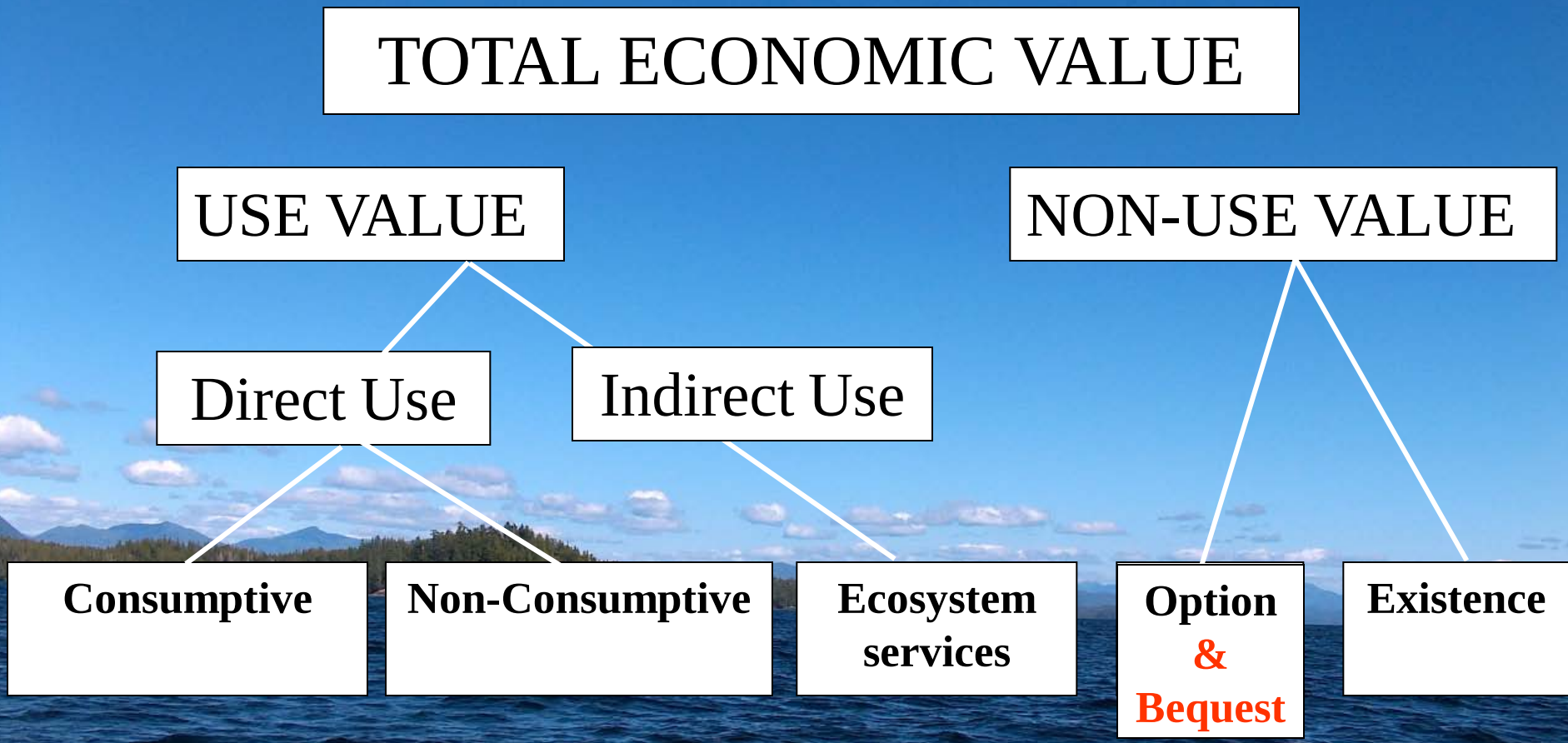


Martell (1999)

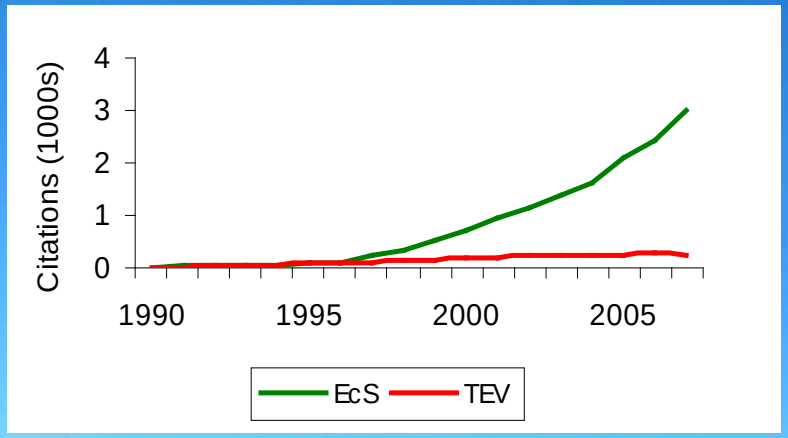
Bequest value
N. Atlantic trends (Biomass, Catch)

Compiled from government agency reports (NMFS, DFO, DIFMAR, IFREMER, etc.), by R.A. Myers.

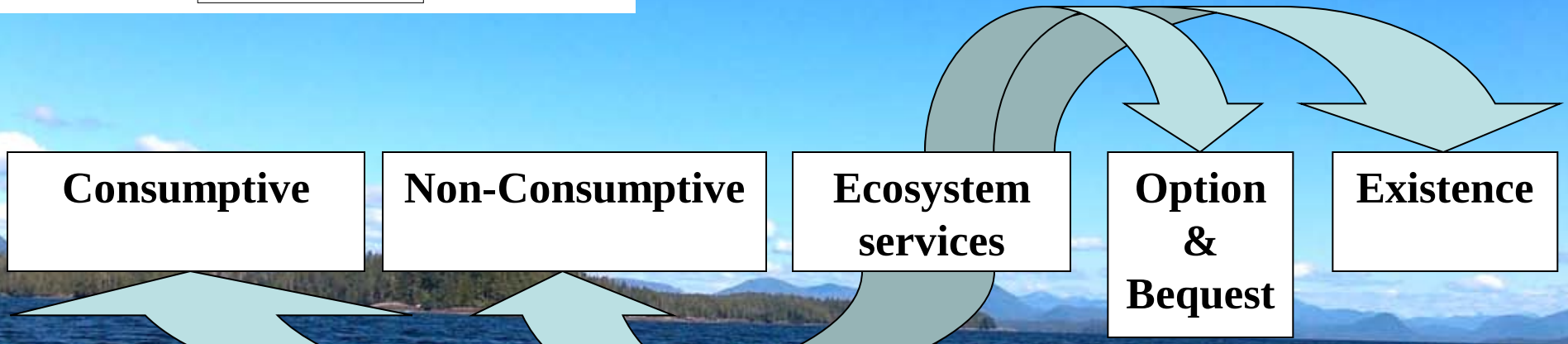




- Existence value: What people are willing to pay to ensure that spp. (e.g., tiger or panda) continue to exist;
- ≠ Intrinsic or cultural and spiritual values.



Ecosystem Services taking over the world



- Utilitarian—creation exists for *Homo sapiens*;
- Useful in pricing ‘externalities’;
- Cultural and spiritual values in boxes (de Groot 2002); or,
- “eloquently described elsewhere” (Daily 1997).

Where is elsewhere / how not to get there

- the dignity of rational nature is often hard to interpret, inherently controversial, in part culturally variable and in no wise subject to the elegant decision procedures which some other ethical theories (such as utilitarianism) think they can provide (Wood 1998);

- Millennium Ecosystem Assessment focus on $$ values, mention ‘sacred groves’, no methodology;

- Estimating the existence value and spiritual value of salmon with currently available economic valuation methods is controversial (NRC 2005);

- $$ values inappropriate (Toman 1997; McCauley 2007), unacceptable to Aboriginal people and major religions; indeed,

- Most people are unwilling to set a price on cultural and spiritual values.

Thesis research

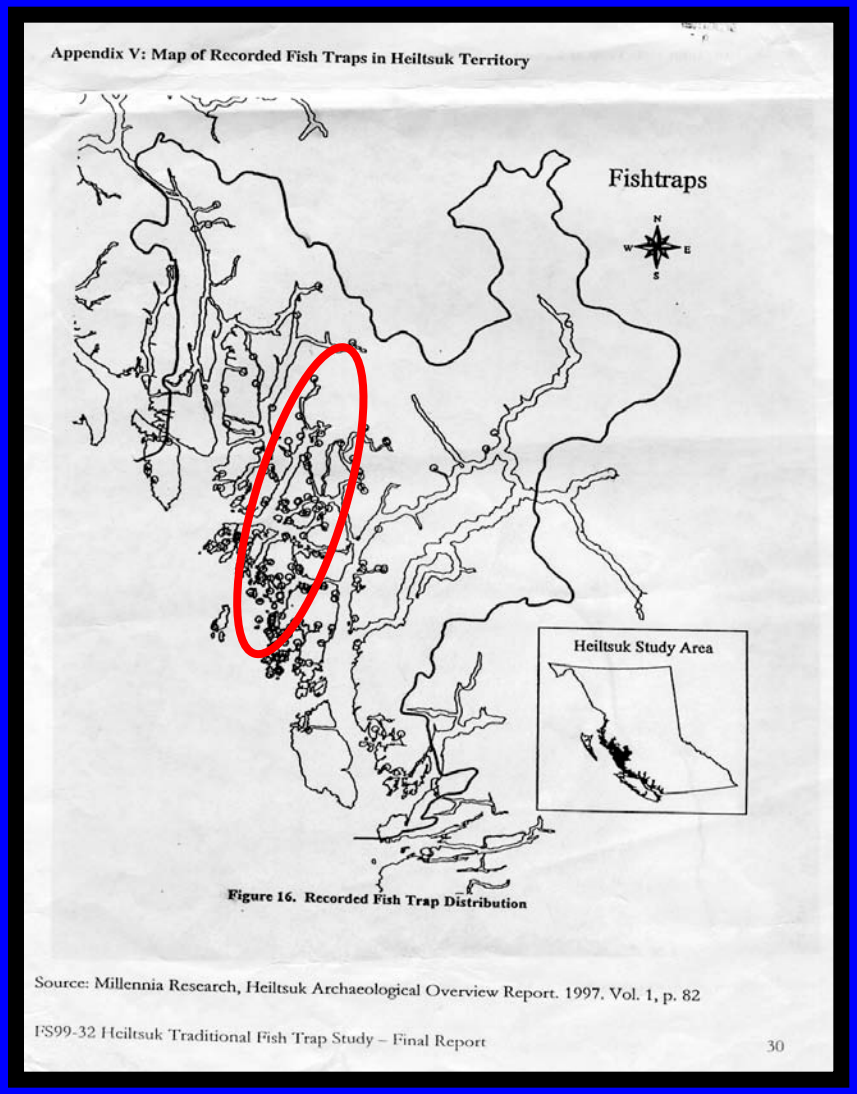
- 2050 scenarios (oil and gas development, climate change impact on iconic spp., and expansion of salmon farming);
- Freeform ‘pen and pencil’ response from a broad range of coastal interests including Aboriginal spiritual leaders, theologians, poets, painters, educators and students;
- Two methods to identify values and priorities:
  1. Computer analysis of text responses (Atlas ti5);
  2. A workshop where participants representing the widest possible range of opinion will rank values identified from #1 and from ethical and theological literature, media and public processes round scenarios.
- Currently working on pilot study to test efficacy of scenarios.

Finally, a word from our sponsors…

‘Erring on the side of caution’

Thank You

Distribution

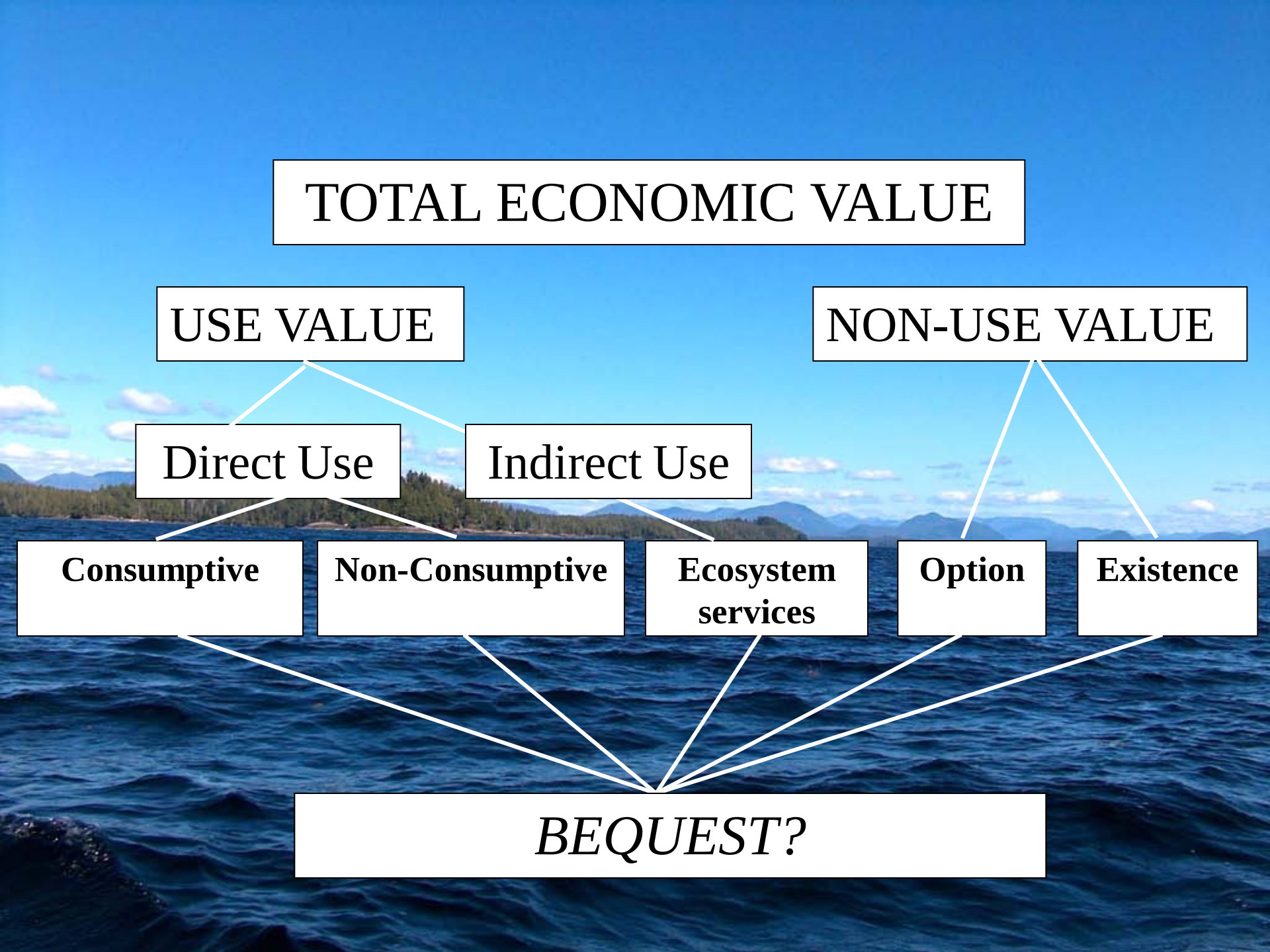


Title: Indian fishing weir on the Cowichan River.

Title: Salmon fishery on the Babine River.

Simulated 25-year sustainable protein production compared with current BC fisheries

Scenario	# of groups fished	1750 model	2000 model
Current Gear (protein max)	25	9.1	4.1
Current Gear (economic max)	25	7.5	3.7
Ecological Limit	25	11.0	5.7
Lost Valley	30	26.0	8.0
Lost Valley Broad	34	28.0	8.4


TOTAL ECONOMIC VALUE
USE VALUE
NON-USE VALUE
Direct Use
Indirect Use
Consumptive
Non-Consumptive
Ecosystem services
Option
Existence
BEQUEST?