

Sport Fishing – Anadromous Fish

description

The map portrays areas used for recreational (sport) fishing for anadromous fish (fish that spend part of their life cycle in fresh water and part in salt water), including five species of Pacific salmon (chinook, coho, chum, pink and sockeye), along the BC coast. The main species caught are chinook, coho and pink salmon. Sport fishing is as much about the overall experience as it is about the actual catch, hence the map portrays where effort is expended, not necessarily where fish are caught. The information reflects both independent and guided participation.

Sport fishing in the tidal waters of British Columbia, which has taken place since the first Western Europeans settlers arrived, is an important social activity, especially in small coastal communities. BC Stats estimated that in 2005 the tidal sport fishery in BC generated \$467 million in direct economic output, \$135 million in GDP, 4,200 full-time equivalent employees and \$88.9 million in employment income.

The 2005 Survey of Recreation Fishing in Canada shows that between 2000 and 2005 tidal sport fishing by BC residents grew by almost 17% to 169,863 active participants, or 4% of the BC population. An additional 106,300 non-resident (from other provinces and non-Canadian) anglers were estimated to have participated in 2005. However the 2005 participation numbers were still 6% lower than those of 1995. Licence figures from the 2009-2010 fishing season show participation by Canadian residents holding steady but show a sharp 37% decline in participation by non-Canadian residents compared to the 2004-2005 fishing season. In the 2009-2010 fishing season 27% of the licences issued to Canadian resident tidal anglers were valid for 5 days or less, verses 86% for non-Canadian residents.

The map represents the collective input and local knowledge of hundreds of tidal water anglers engaged through Sport Fishing Advisory Board (SFAB) local and regional committee meetings at 19 different locations along coastal BC. The meeting participants were asked to “update and edit the charts provided to identify areas that you currently fish or have fished over the past ten years”. The source information for the review was recreational fishing data collected by the Province of British Columbia between 1993 and 2003, based primarily on interviews with Fisheries and Oceans Canada (DFO) Conservation and Protection fisheries officers and augmented with local knowledge. Each of four sport fisheries (anadromous, groundfish, crab, and shrimp and prawn) was marked on a separate chart. A similar update procedure was conducted by Parks Canada in 2008 for the southern Strait of Georgia and that dataset was incorporated to create a coast-wide updated view of the extent of sport fishing.

The SFAB is a volunteer-based tidal water angling consultation process organized by and overseen by DFO. The process has no formal or legal authority and is not registered as a company or a society, but merely offers advice on fisheries matters to DFO. The local SFAB committees balance participation of members who recreationally fish as a hobby as well as those who businesses or jobs earn them revenue from sport fishing. Through interactions with the BC Wildlife Federation, the BC Federation of Drift Fishers, the BC Federation of Fly Fishers and the Sport Fishing Institute, the SFAB is broadly accepted as the voice of tidal water sport fishing in BC.

Also displayed on this map are Rockfish Conservation Areas (RCAs), which are fisheries closures designed by DFO to protect and conserve inshore rockfish populations. Recreational fishing for anadromous fish is not permitted within RCAs. The only recreational fishing permitted within RCAs is for invertebrates by hand picking or dive; crab and prawn by trap; and smelt by gillnet.



PHOTO: JOHN BROUWER

data sources

- Province of British Columbia Coastal Resource Information Management System (CRIMS), updated by BC Marine Conservation Analysis (BCMCA) with local knowledge
- Parks Canada
- Fisheries and Oceans Canada – Rockfish Conservation Areas

data resolution

- Fishing areas were mapped using CHS Nautical Charts ranging in scale from 1:70,000 to 1:120,000.
- Rockfish Conservation Areas were compiled using CHS nautical charts.

date compiled

- Province of BC: 1993 – 2003
- Parks Canada: 2008
- Data were verified and updated by BCMCA between 2008 and 2009
- Rockfish Conservation Areas: 2007

reviewers

- C. Bos and D. Daugert, Sport Fishing Advisory Board

reviewer comments

- There is no practical way to test or verify data that were collected anecdotally at local meetings. “I noted several instances where I knew of specific areas fished on occasion that were not identified.”
- The obvious shortcoming is that the data do not provide a metric of intensity, economic value, or social value. All of these need to be taken into account if these data are to be used for planning in the future.
- The tidal portion of streams and rivers was not included. These areas are defined as marine fisheries by DFO, and are some of the most heavily fished areas, particularly by families. Because these waters are important from a life cycle perspective and because they are so accessible by individuals and families there may be significant uses and impacts of which we are not aware. This is not to say that the data currently exist and as such represent a gap. Rather, if and when these data do become available they should also be included.
- Presence / absence of data do not reflect the full range of interests and importance to all users, hence caution should be applied to not use the data as a basis for trade-offs.

caveats of use

- Not to be used for navigational purposes.
- An absence of a polygon on the map does not indicate an absence of sport fishing in a given area.
- There is no measure of economic value attached to each fishery category or identified fishing ground.
- Fishing locations change over time in conjunction with changes in fish migration patterns, food distribution, weather and other environmental variables that constitute “good fishing grounds”. Some locations provide fishing opportunities for one target species for only a few weeks per year as they migrate through the area. Others provide opportunities for multiple species at different times of the year. The data do not contain a comprehensive indication of frequency of use to show how often a particular location is visited or whether that use is seasonal or year round.
- Any relative importance rankings assigned are from the historic Provincial data. In verifying and updating data there was no grading of relative importance of one fishing area over another. Reasons include:
 - Areas overlap, and fishing grounds that may be important to one community may be less important to another.
 - Boat size is a major factor for accessing fishing grounds. Bigger boats can range further from shore. The relative importance of an area is tied to the size of boat used by the individual providing the ranking.
 - While there was wide participation in the mapping exercise by SFAB members throughout the coast, participants may not be a representative sample when it comes to ranking importance. Ranking fishing grounds on a basis of relative importance would create a bias towards areas preferred by tidal water anglers who agreed to participate in the mapping exercise.
- Recommended date of expiry for use of these data in a marine planning context: Between 2012 and 2014.
- Rockfish Conservation Areas were established beginning in 2002 while the recreational fishing data were collected beginning in 1993. As a result, the map may show fishing effort in the closed areas, while in reality they did not overlap in time.

map, feature data and metadata access

- Visit www.bcmca.ca/data for more information.



references

- BC Stats. *British Columbia Fisheries and Aquaculture*. Prepared for the BC Ministry of Environment. 2007. www.env.gov.bc.ca/omfd/reports/BC-Fisheries-Aquaculture-Sector-2007.pdf
- Fisheries and Oceans Canada. *2005 Survey of Recreational Fishing in Canada*. 2005. www.dfo-mpo.gc.ca/stats/rec/can/2005/index-eng.htm
- Fisheries and Oceans Canada, Pacific Region. *Statistics for Tidal Water Sport Fishing Licences*. 2011. www.pac.dfo-mpo.gc.ca/fm-gp/rec/licence-permis/stat-eng.htm



BCMCA Atlas
Sport Fishing
Anadromous Fish

Legend

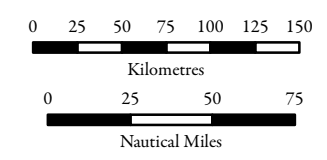
-  Anadromous Fish
-  Rockfish Conservation Areas

Data Sources:
BCMCA, Fisheries and Oceans Canada,
Parks Canada, Province of British Columbia

Base Data:
ESRI Base Data, GeoBase, GeoBC,
NOAA, Natural Resources Canada,
USGS, Washington State Government

Thematic Data:
For more information on data sources
and methods please refer to the
facing page to this map

Projection: BC Albers NAD83



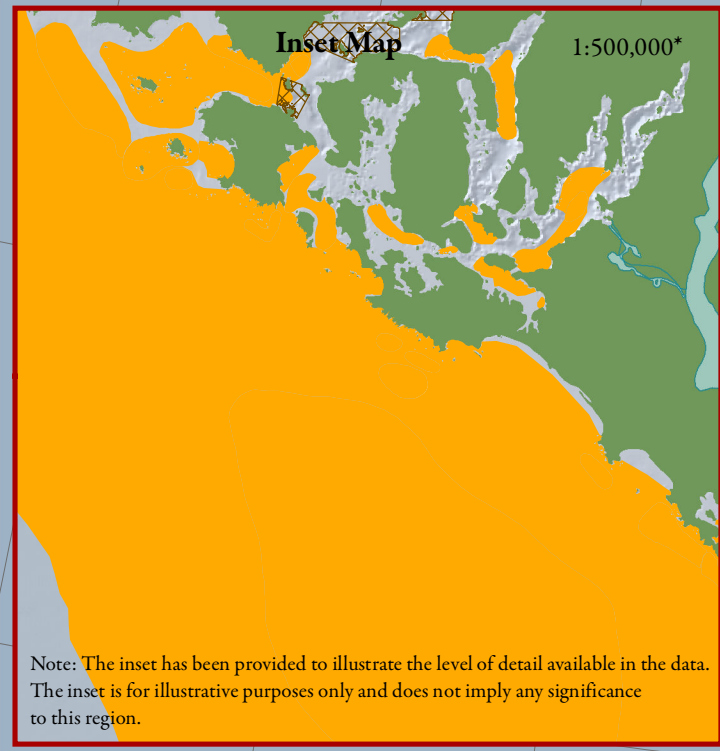
1:4,250,000 *

* Written scales are approximate and
are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.
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Note: The inset has been provided to illustrate the level of detail available in the data.
The inset is for illustrative purposes only and does not imply any significance
to this region.