

Fisheries and Oceans District Offices

New Westminster 524-7181

Chilliwack 792-6011; Mission 826-3664;
Steveston 274-7217; Horseshoe Bay 921-7811;
Squamish 892-3230; Vancouver 524-7306;
Coquitlam 524-7169; Surrey 524-7171.

Nanaimo 754-3257

Duncan 746-6221; Qualicum 752-9712;
Powell River 485-9621; Comox 339-2031;
Pender Harbour 883-2313; Nanaimo 754-1041.

Port Alberni 724-0195

Tahsis 934-6606; Tofino 725-3468.

Campbell River 287-2102

Alert Bay 974-5216; Port Hardy 949-6422.

Kitimat 632-6158

Bella Bella 957-2312; Bella Coola 799-5345;
Rivers Inlet Radiotelephone.

Prince Rupert 624-9137

Terrace 635-2206; Smithers 847-2312;
Nass Camp 633-2408; Hazelton 842-6327.

Queen Charlotte City 559-4413

Sandspit 637-5340; Masset 626-3316.

Search and Rescue 112-732-4141 or ask Operator
including **Diver Distress** for **Marine Distress**
Observe, Record, Report (toll-free) Zenith 2235
Environmental Emergency (24-hour) 666-6100
Sport Fishing Information (24-hour) 666-3169
Sport Fishing Ombudsman 666-2768
Distress Safety and Calling Channel 16
Weather Broadcast Service Channels 21B, WX1
WX2, WX3, WX4

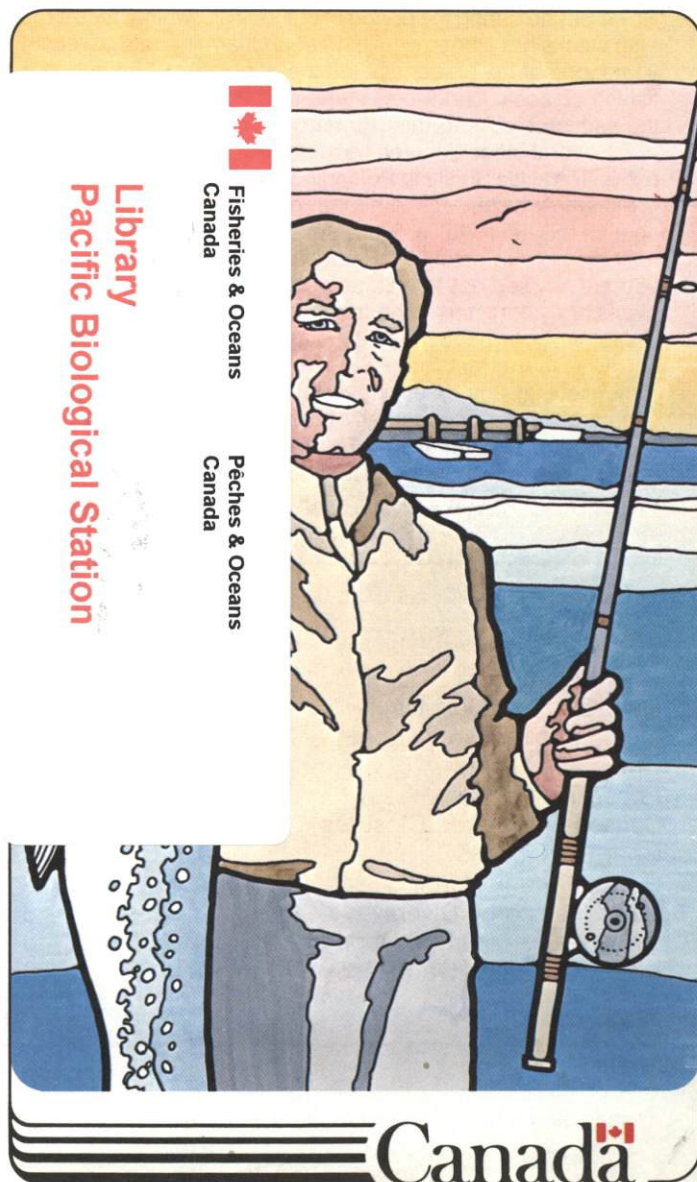
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(604) 666-1384

General Enquiries (604) 666-3545



Fisheries Pêches
and Oceans et Océans

1982 British Columbia Tidal Waters Sport Fishing Guide



B.C.'s Tidal Waters Welcome You

Welcome to a new season of sport fishing in British Columbia. Besides world renowned salmon, the province's tidal waters (saltwater) offer fishing enthusiasts a variety of catch opportunities including trout, perch, shrimp and oysters.

In order to conserve and protect this vital natural resource, the government departments responsible enforce bag and size limits, gear restrictions and seasonal and area closures.

For example, a spot closure has been put into effect in the upper two thirds of Howe Sound, from July 15 to September 15, during which sport fishing for all salmon is prohibited. The objective of this measure is to create a temporary sanctuary in Howe Sound during the period of chinook spawning migration. Fish stocks have been declining at an alarming rate in recent years, one of the reasons being the popularity of the area for fishing chinook. Therefore, steps have been taken to return the salmon stocks to their former levels of abundance.

Several other closures have been imposed to protect the public. Paralytic Shellfish Poisoning, also known as Red Tide, is extremely hazardous to human health and there is no antidote for this neuro-toxin. Since serious illness and even death may result from eating PSP-contaminated bivalve molluscs, you are advised not to take any chances by eating mussels, clams or oysters harvested from closed areas. (See *Shellfish Contamination*, page 15.)

Due to the fact that PSP "bloom" is unpredictable and may occur at any time, especially during summer and fall, fishery officers are constantly taking samples from different areas for toxin examination. Therefore, be sure to check with the Fisheries office in the district for local PSP, sanitary and conservation closures prior to digging.

Additional closures to those published here may be announced by Public Notice or local radio broadcasts and fishermen are encouraged to consult a local fishery officer for current regulations and amendments. Sport fishing regulations are subject to change and this guide only summarizes them for handy reference.

Telephone numbers for Fisheries and Oceans offices have been published on the front cover, along with a Sport Fishing Information number that is operational 24 hours a day, seven days a week. After regular office hours, a recorded message announces any area restrictions and suggests fishing locations, times and gear.

All sport fishermen, whether residents or non-residents of Canada, require a personal licence for fin fish. Licences must be obtained in person and are available, coastwide, at over 600 outlets.

Although some may see sport fishing as purely recreational, Dr. Peter Pearse, in the Preliminary Report of the Commission on Pacific Fisheries Policy, emphasized its significant role among west coast fisheries. Dr. Pearse wrote: "With such a wide social significance, economic value and impact on resources, the sportfishery cannot be regarded as trivial. The legitimacy of this form of resource use and its importance must be recognized and incorporated into fisheries policy; this has been made clear in the extensive discussion of sportfishing problems in my public hearings and meetings . . . I have made a special effort . . . to identify the scope of this fishery and its implications for management."

For information on fishing in non-tidal waters, refer to the B.C. Sport Fishing Regulations Synopsis available from the Fish and Wildlife Branch of the B.C. Ministry of Environment, Parliament Buildings, Victoria, B.C. V8V 1X4, Tel: 387-1628

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Sport Fishing Licences

Sport fishermen require a personal licence in B.C. tidal waters for all fin fish (fish other than shellfish and crustaceans).

Licences are available, coastwide, from many sporting goods stores, marinas and charter boat operators. Many major department stores also sell licences in their sporting goods departments.

There are four types of licences:

Resident of Canada (annual)	\$ 5.00
Resident or non-resident (1 day)	\$ 3.50
Non-resident (annual)	\$20.00
Non-resident (3-day)	\$10.00

- These are personal licences and must be obtained, in person, by the licensee.
- A one-day licence is issued for one calendar day only and expires at midnight.
- A three-day licence is issued for three calendar days only and expires at midnight on the third day.
- Licences are non-transferable and must be carried on the person while fishing or while in possession of sport-caught fish.
- If a licence is lost or destroyed, another must be purchased prior to fishing. (Licences are not refundable.)
- A licence is not valid unless signed by the licensee.
- No licence is required for children 15 years of age and under, but when there are persons over and under 16 years of age on board a vessel, no one shall fish from the vessel unless at least one person has a licence.
- A resident of Canada is a person who has resided in this country for not less than six months immediately preceding the day on which the licence is purchased. All others are defined as non-residents.

Chinook Catch Record

An annual 30 chinook salmon catch limit per person is in effect. Therefore, a catch record is attached to all licences. When a chinook salmon is landed, cut the "notch" which appears on the left hand side of the licence, then enter the date and location of the catch. The notches are numbered to reflect a cumulative total of the number of chinook caught.

One-day and three-day licences are numbered according to the daily allowable catch limit.

Fishermen are asked to retain their licence as they may be requested to return it for statistical information.

Under the terms of the Fisheries Act, a maximum fine of \$5,000 and/or one year in jail, and/or forfeiture of vessel and equipment may be assessed for infractions of Fishery Regulations.

Daily Bag and Size Limits

Check with a local Fisheries officer for possible variations in bag limits.

FIN FISH

Salmon

There is a seasonal bag limit of 30 chinook.

In any single day, no more than four salmon, in total, may be caught. None may be less than 30 cm in length, from tip of nose to centre of tail; chinook must measure at least 45 cm long. However, there are exceptions:

- Only two of the four salmon allowed in the daily bag limit may be chinook — from December 1, 1981 to March 31, 1982.
- In the tidal waters of the Pitt River downstream from the CPR bridge; and in the Fraser River from the CPR bridge in Mission downstream to a line drawn from the Oak Street bridge over the north arm and along Highway 499 through the George Massey tunnel and across Deas Slough:
 - you may not retain a chinook salmon over 50 cm.
 - you may retain up to two coho salmon over 50 cm (but you may retain up to four jacks).
- In Rivers Inlet, from July 20 to September 15, no more than two salmon caught in any one day may be chinook and only four chinook may be caught during any one year between a straight line drawn from points marked by fishing boundary signs at McAllister Point and Scandinavian Bay and a straight line drawn from points marked by fishing boundary signs at McTavish Cannery and Burnt Bluff.

Trout

Eight sea-run trout in any one day, 20 cm or more in length, of which no more than two shall be over 50 cm in length, measured from tip of nose to centre of tail, and not more than four shall be cutthroat.

Halibut

Two halibut of any size in any one day.

Lingcod

Three lingcod of any size in any one day in areas from Sheringham Point through Strait of Juan de Fuca and Strait of Georgia to Tuna Point in Johnstone Strait.

Sturgeon

One only, not less than 100 cm in length, measured from tip of snout to tip of tail.

Metric Conversion

This chart provides an approximate guide for your own calculations of metric or imperial equivalents.

(2.5 cm = 1 inch; 1000 g = 1 kg; 1 kg = 2.2 lbs.)

Into Metric

<i>If you know</i>	<i>multiply by</i>	<i>to get</i>
Length		
inches	2.5	centimetres
feet	0.3	metres
yards	0.91	metres
Weight		
ounces	28.3	grams
pounds	0.45	kilograms

Out of Metric

<i>If you know</i>	<i>multiply by</i>	<i>to get</i>
Length		
millimetres	0.04	inches
centimetres	0.4	inches
metres	3.3	feet
Weight		
grams	0.035	ounces
kilograms	2.2	pounds

Octopus

One per day per person.

Oysters

A limit of 15 oysters in the shell or one half-litre shucked per day.

Rock Scallops

South of Cape Caution, six purple hinged rock scallops in any one day. North of Cape Caution, 12 purple hinged rock scallops in any one day. No size limit.

CRUSTACEANS

Crabs

Four dungeness or red rock crabs, in total, in any one day, in the tidal waters of Johnstone Strait, Georgia Strait and Juan de Fuca Strait between Tuna Point in the north and Owen Point in the south.

Pacific or Dungeness crab must not be less than 165 mm across the greatest breadth of the shell. Red rock crab must not be less than 115 mm across the greatest breadth of the shell.

Two Alaska king crabs. No size limit.

Not more than six crabs in total in all other tidal waters of the province. Crabs may not be brought ashore with the shell or carapace removed.

Shrimp and Prawns

Twelve kilograms in the shell or four kilograms of meat. No size limit.

ECHINODERMS

Red Sea Urchins

Twelve from waters within one half mile of the Pacific Rim National Park tidal waters. No limit in other areas.

Red sea urchins must not be less than 100 mm across the longest diameter or greatest breadth of the shell.

MOLLUSCS

Abalone

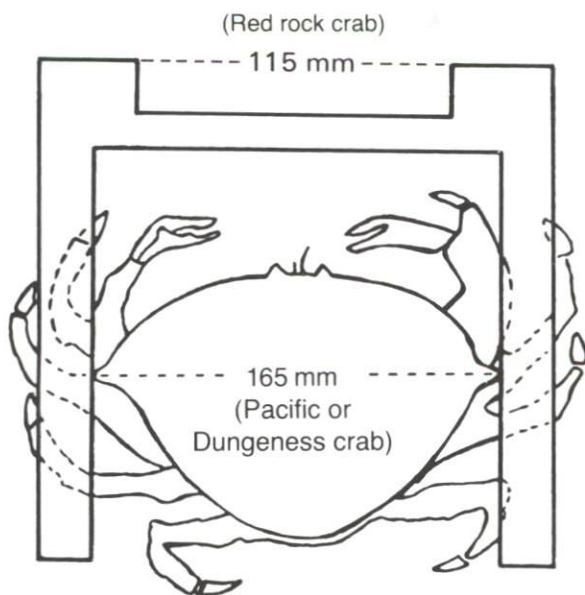
South of Cape Caution, 12 abalone in any one day; north of Cape Caution, 24 abalone in any one day. They must not be less than 100 mm across the longest diameter or greatest breadth of the shell and must be measured when at the place of harvest. Also, each abalone which has been dressed for consumption must have its shell on board the vessel.

Clams

South of Cape Caution, no more than 25 butter clams and 12 razor clams, with 75 clams in total. North of Cape Caution, no more than a total of 75 clams in any one day. No size limit.

Mussels

No bag or size limit.



Crab caliper illustrated above can be cut from plywood, heavy cardboard, plastic, sheet metal or masonite.



Razor clam

How Well Do You Know Your Crabs and Clams?

Fishing enthusiasts aren't always in pursuit of fin fish such as salmon and trout. They also like to bag molluscs, crustaceans and echinoderms — most of which live in shells. Among the favourites are:



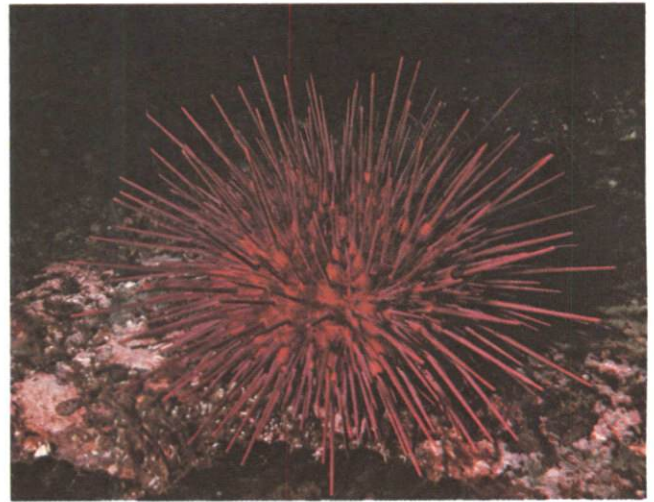
Northern abalone



Butter clam



Pacific or Dungeness crab



Red sea urchin



Red rock crab



Rock scallop

Possession Limits

Salmon

Two single-day bag limits of fresh, frozen, smoked or cured salmon.

The maximum amount of canned or bottled sport-caught salmon is not to exceed 12 kg canned plus the catch limit for two days of fresh, frozen, smoked or cured salmon; or, 24 kg canned plus the catch limit for one day of fresh, frozen, smoked or cured salmon; or 48 kg canned and no fresh, frozen, smoked or cured salmon.

Halibut

One single-day bag limit on board a vessel.

Oysters

One single-day bag limit.

All Other Fish and Shellfish

Two single-day bag limits.

Note: Possession limits do not apply at a person's permanent residence.

Seasonal and Area Closures

The following closures and restrictions are in effect. Others may be made periodically by Public Notice. Check with a local fishery officer for current information.

FIN FISH

Salmon

The following areas are closed. In addition, other closures may be in effect through Public Notice or made periodically by Public Notice, particularly to protect juvenile or spawning salmon. Check with a fishery officer for full details.

Mouth of the Fraser River

That portion of the Strait of Georgia inside a line from Point Grey to the Point Grey Bell Buoy to Thrasher Rock Light to the westernmost point of the International Boundary, then following the International Boundary to Blaine, Washington and up to a line at Highway 499 through the George Massey Tunnel to the Oak St. bridge across the north arm of the Fraser River.

Marble River (Port Alice Area)

That portion of Marble River from the Marble River Tidal boundary downstream to fishing boundary signs erected at the entrance of Varney Bay, is closed to sport fishing for chinook and coho salmon from August 15 to December 31 inclusive.

Howe Sound

The waters of Howe Sound, north of a line from Langdale Ferry Landing on Sechelt Peninsula to the most southwesterly point of Gambier Island and from Halkett Point on the southeasterly side of Gambier Island to a boundary sign on the northerly entrance to Alberta Bay on the mainland, are closed to salmon sport fishing from July 15 to September 15.

Trout

No closed season except as periodically announced. (See B.C. Sport Fishing Regulations Synopsis for closures in non-tidal waters.)

Lingcod

Closed from November 15 to April 15 in waters between the mainland and Vancouver Island, from Tuna Point to Sheringham Point.

Smelts

June 1 to August 15 inclusive, closed to fishing for smelts in waters of lower B.C. mainland easterly of a line from Reception Point on Sechelt Peninsula to Thrasher Rock Light and to the most westerly point of the International Boundary in the Strait of Georgia. Also closed to sport fishing from 8 a.m. Monday to 8 a.m. Thursday at all other times of the year.

Halibut

Closed November 1 to end of February, coastwide.

BIVALVE MOLLUSCS

Oysters, clams, mussels, scallops, etc.

Statistical areas 1 to 11 and 21 to 27 are closed for harvest of all bivalves due to regular recurrences of PSP (Red Tide) and presence of toxic butterclams. (See maps on pages 12-14). Areas 12, 13, 15 and 16 are closed for the recreational harvest of butterclams due to the retention of residual PSP toxin.

Sewage contaminated areas designated in Schedule 1 (areas listed on pages 16-19) and shown on the southern map on pages 12-13) are closed.

Oysters

Registered oyster leases, Pendrell Sound area, Nanaimo Harbour and Nanaimo Exit Channel are closed throughout the year.

CRUSTACEANS

Crabs

Pender Harbour is closed inside of a line from the government wharf on Henry Point, south to a fishing boundary sign on Francis Peninsula; English Bay and False Creek in outer Burrard Inlet are closed inside a line from a fishing boundary sign on Locarno Beach to Ferguson Point in Stanley Park; Inner Burrard Inlet is closed between the First and Second Narrows bridges throughout the year.

Shrimp and Prawns

Burrard Inlet between the First and Second Narrows bridges is closed throughout the year.

Gear Restrictions

It is against Fisheries Regulations to:

- use more than one line when there are one or more persons on board a boat, 16 years of age or over, who do not hold a valid Tidal Water Sportfishing Licence.
- use gear designed to catch more than one fish at one time in angling except when fly fishing or herring fishing. When fishing in Fraser River tidal waters (downstream from Mission CPR bridge to the Oak Street bridge, George Massey Tunnel), gear designed to catch not more than two fish may be used.
- fish with a downrigger, without the use of automatic release clips. The clip must free the fishing line when a fish takes the lure, allowing the fish to be retrieved by rod and reel. The maximum weight of a sinker fixed to a fishing line is one kilo.
- use artificial power to operate a gurdy or other device in handling sport fishing gear.
- use more than one gillnet or set net, the mesh size of which is to be greater than 25 mm and the length of which shall not exceed 7.5 m when fishing for smelts or eulachons.
- use gear other than a hook attached to a handline or rod and line to catch halibut or salmon.
- use more than two rings, dip nets or traps or a combination of these to catch crabs.
- use any gear except ring nets or dip nets to catch crabs in Fulford Harbour at any time and in Naden Harbour from May 1 to September 30.
- use more than four shrimp traps or prawn traps, or a combination.

General Prohibitions

It is illegal to:

- stone, club, use firearms or explosives, or in any other such manner, hunt, kill, molest or injure fish.
- use torches, artificial lights, spears, jigs or snares in fishing for salmon and trout, including steelhead.
- trap or pen fish on their spawning ground, or in rivers or streams leading to spawning grounds.
- use jigs, gaffs, spears, rakes or any sharp-pointed instrument to take crabs or octopus or use suction devices, spears or any sharp-pointed instrument to take abalone.
- use bare unbaited hooks or grapnels for taking any fish except herring, needle fish and anchovies.
- fish for halibut, game fish or salmon for personal use except by angling.
- purchase or possess fish caught under special licence conditions (i.e. Indian Food Fish Licence).
- buy, sell, barter or expose for sale or barter any fish caught in sport fishing.
- use a commercial trolling vessel for sport fishing unless the lines are removed from the power gurdies.
- transport or export salmon or other game fish from the province in excess of the possession limit.
- export from the province during any calendar year more than 40 kg gross-weight of canned salmon if the salmon was taken by sport fishing.

Sport Fishing by Divers

Sport fishing regulations apply to collecting and spear fishing by divers. Divers (resident or non-resident) are required to have a 1982 Tidal Water Sportfishing Licence to take fin fish. Licences, however, are not required to harvest marine invertebrates such as molluscs, crustaceans and echinoderms.

Spear fishing means fishing by means of a spear propelled by a spring, an elastic band, compressed air, a bow or by hand.

Bag limits and seasonal and area closures may be revised and divers will be advised by Public Notice throughout the season. Divers should take special note of the section on *General Prohibitions*.

Observe, Record and Report . . .

Fish and Wildlife Violations, Littering, Pollution

Users of the recreational fishery have a responsibility to protect and maintain the environment and natural resources.

Violations of fish and wildlife laws, littering and other forms of pollution are costly and affect everyone.

The federal and provincial governments need your help. Please report any violations you see in one of two ways:

- complete a Violation Report Card, available at Fisheries and Oceans offices and the B.C. Ministry of Environment, and return it to one of the addresses shown on the card
- or
- record the information on the card and for a quicker response, call the toll-free telephone number Zenith 2235.

A 24-hour Environmental Emergency number is also in operation for reporting oil spills and other incidents. Dial **666-6100**

Voluntary Sport Head Recovery Program



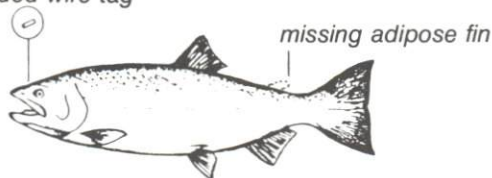
The Department of Fisheries and Oceans wants the heads of all sport-caught chinook, coho or steelhead missing their adipose fin — the small fleshy fin on the salmonid's back, just in front of its tail. These fin-clipped fish carry a coded-wire tag (C.W.T.) in their heads which holds a key to essential information about British Columbia salmonids.

The one mm-long tag is implanted in the nose cartilage of both hatchery and wild stocks. Hatchery fish are tagged one to three months prior to their release, whereas wild salmonids are captured and tagged in their natural rivers during downstream migration. The adipose fin is clipped at the same time to serve as a visual identifying mark. About 15 million salmonids are marked by the United States and Canada each year.

A world of information

Information derived from coded-wire tag studies provides an understanding of the many aspects of salmonid biology. When combined with catch information provided by sport fishermen, it is possible to establish: general migratory habits and basic biology of west coast salmonids; which stocks contribute to each B.C. fishery; and the relative success of various enhancement strategies such as hatchery diets and release timing. In more specific terms, this knowledge helps Fisheries produce larger and stronger salmonid stocks.

1mm coded-wire tag



If one of your chinook, coho or steelhead is missing its adipose fin, please:

- Cut off the fish's head. Do not try to locate or remove the coded-wire tag.
- Bring the head to one of 150 "Head Depots" located along B.C.'s coast — at marinas, sport shops, Fisheries offices and hatcheries. Watch for the Head Recovery signs and posters.
- Fill out a Head label at the Depot, attach it to the salmonid head, and place it in the bucket provided. **Print the label clearly and in pencil only.**

For your information

All participating sport fishermen will receive information on the origins of their tagged fish, as well as a Salmonid Enhancement lapel pin and newsletter.

In addition, if your salmonid head is found to contain a tag, your name will be entered in one of eight annual draws held throughout the year. Each draw awards one \$500.00 and six \$50.00 prizes to lucky fishermen. (Winners must answer a skill-testing question.)

For further information or to find the location of Head Depots, contact your local Fisheries office or phone (collect) 666-6383.

Salmonid Enhancement Program (SEP)

The Salmonid Enhancement Program (SEP) is operated in conjunction with the provincial Ministry of Environment to restore Pacific salmon and sea-run trout to historic levels of abundance. For sport fishermen, the program means the release each year of millions of juvenile steelhead, coho and chinook from 16 major SEP facilities, 14 community development projects and close to 150 public participation projects.

So far, more than 7,000 people have volunteered their time on public participation projects such as stream clearance and rehabilitation, the operation of incubation boxes and the restoration of natural spawning habitats. Sport fishermen interested in working on a local stream can become directly involved by contacting any of the six community advisors (CAs) employed by SEP to coordinate public involvement. They can be reached at the following locations:

New Westminster	524-7288
Kamloops	374-9533
Nanaimo	753-4181
Terrace	635-2206
Victoria	388-3252

Pacific Salmon

Five species of salmon are indigenous to the coastal waters of British Columbia. All may be taken in the tidal waters sport fishery (note *Seasonal and Area Closures* section), but at present only chinook and coho may be taken in the non-tidal or fresh waters of the province. Pink, chum and sockeye may not be fished in non-tidal waters.

An immature salmon of any species is classified in the sea as a *grilse*, and a male salmon that has matured after only one

year in the ocean, is termed a *jack*.

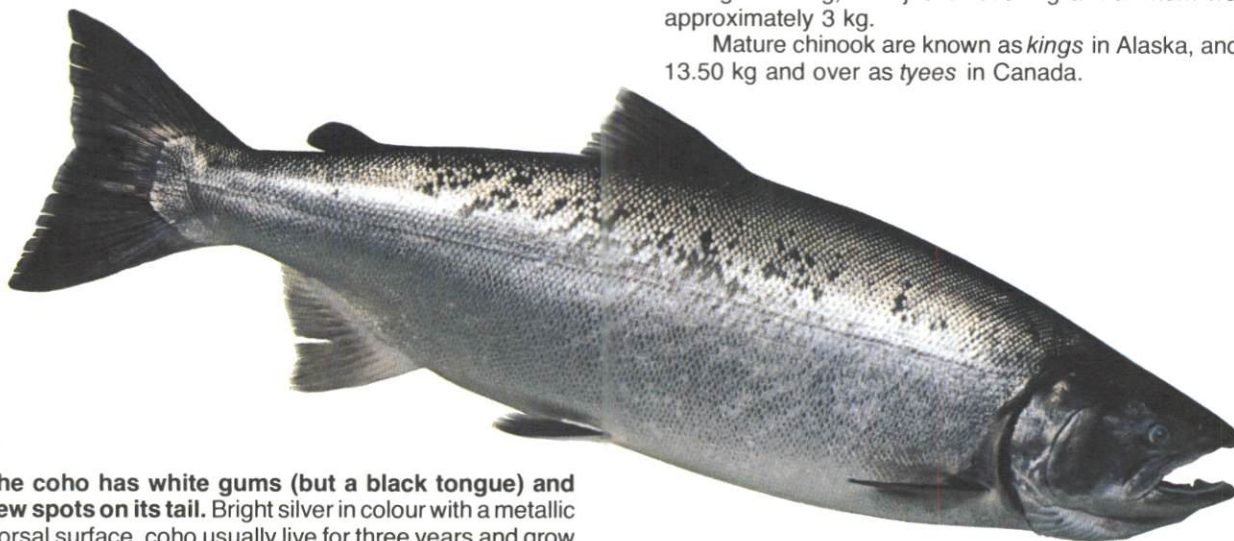
Salmon vary in shape and colour at different stages of maturity. Generally, all species of salmon are a silvery, blue-green when far from their home streams and change to tones of brown as they approach their rivers. These photographs illustrate some noticeable differences among the species and show how most salmon, sport-caught along the B.C. coast, are likely to look.



Chinook

Black gums and a spotted tail distinguish the chinook from other salmonids. The chinook has a lightly spotted blue-green back (shown here in brown tones as the salmon approaches its river), and is the largest, most prized game fish, living from three to seven years. Chinook range in weight from 1.5 kg to 54 kg, with jacks reaching a maximum weight of approximately 3 kg.

Mature chinook are known as *kings* in Alaska, and those 13.50 kg and over as *tyees* in Canada.



Coho

The coho has white gums (but a black tongue) and very few spots on its tail. Bright silver in colour with a metallic blue dorsal surface, coho usually live for three years and grow rapidly in the final year. They range in weight from 1.35 kg to 13.95 kg. Small coho passing from the grilse stage to maturity are termed *bluebacks* in the Strait of Georgia where they prevail from April to early July.



Chum

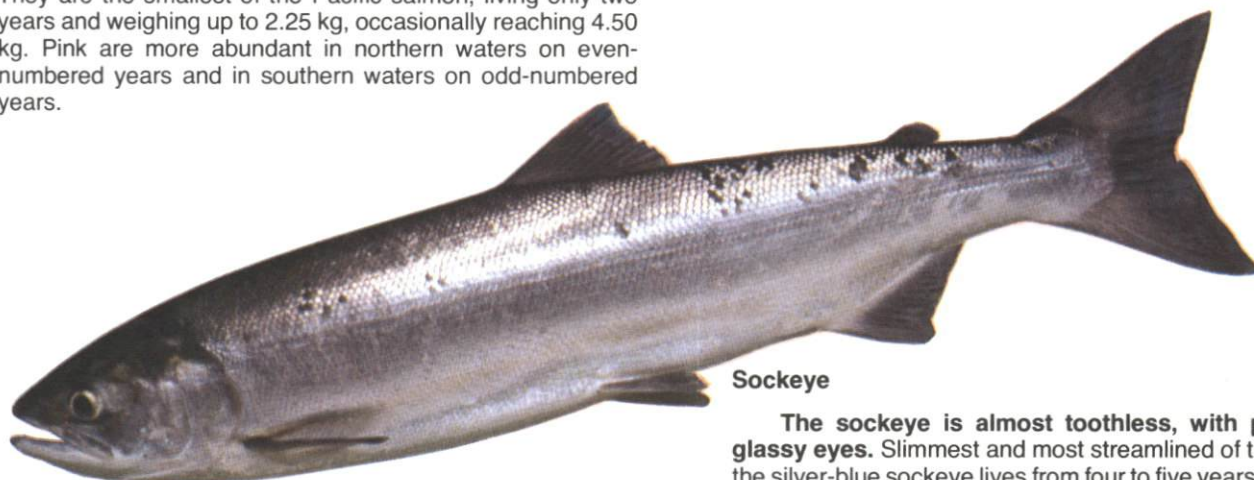
Usually, a white tip on the anal fin marks a salmon as a **chum**. Resembling sockeye, but larger, chum have silvery sides with black spots and faint grid-like bars. They live three to five years and generally weight 3.60 kg to 4.50 kg, but can reach 14.85 kg.



Pink

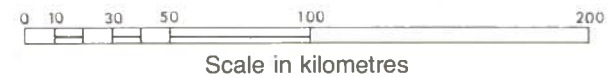
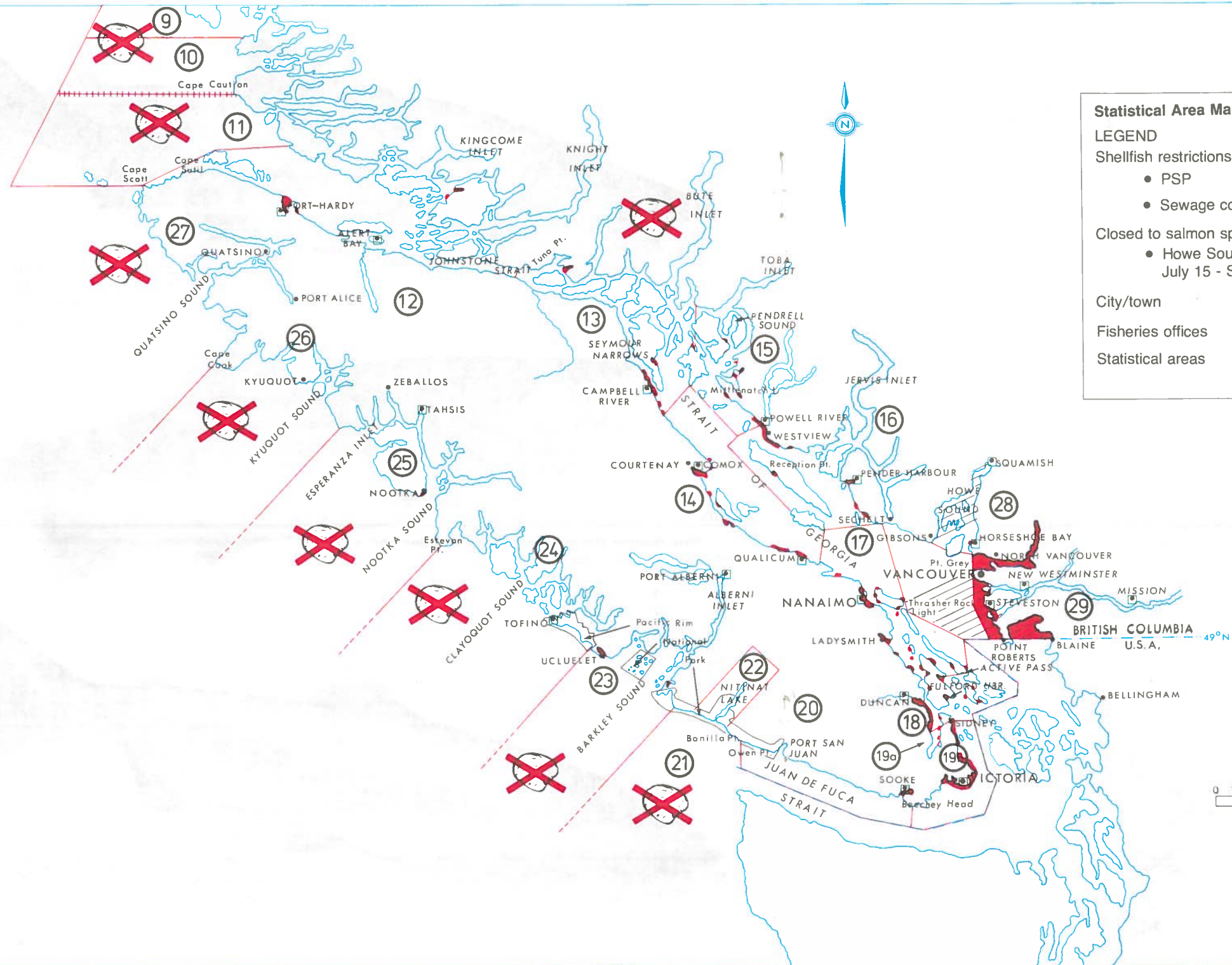
Pink salmon have noticeably tiny scales and a tail marked with oval spots.

In the sea, pink have silver bodies with spotted backs. They are the smallest of the Pacific salmon, living only two years and weighing up to 2.25 kg, occasionally reaching 4.50 kg. Pink are more abundant in northern waters on even-numbered years and in southern waters on odd-numbered years.



Sockeye

The sockeye is almost toothless, with prominent, glassy eyes. Slimmest and most streamlined of the species, the silver-blue sockeye lives from four to five years and generally weighs between 2.25 kg and 3.15 kg but sometimes reaches 6.30 kg. Young sockeye remain in fresh water nursery lakes a year or more before migrating to the sea.



Statistical Area Map — North

February 1982

LEGEND

Shellfish restrictions
(refer to text) • PSP

City/town

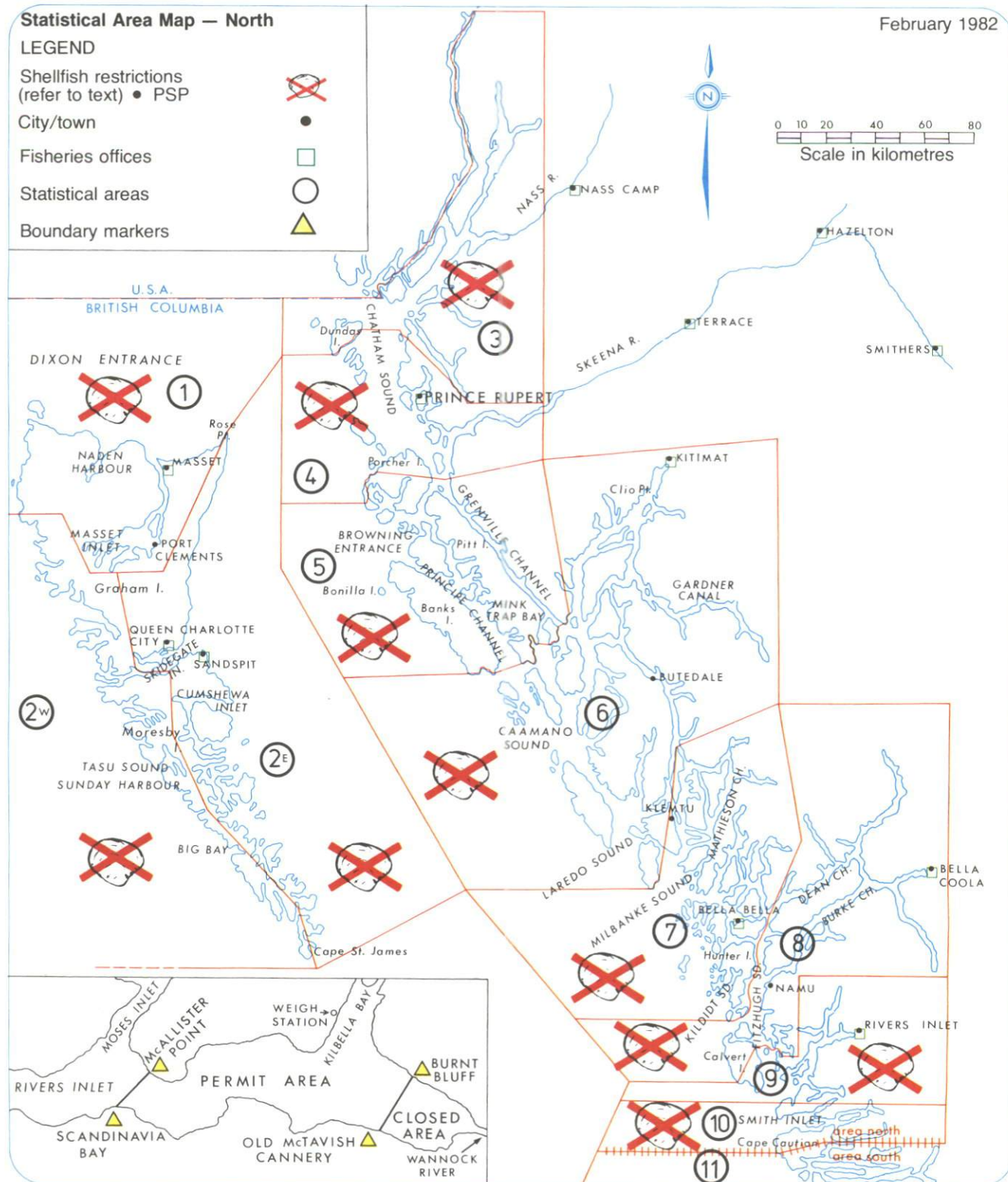
Fisheries offices

Statistical areas

Boundary markers



0 10 20 40 60 80
Scale in kilometres





Shellfish Contamination

Consumption of contaminated bivalve molluscs (e.g. oysters, mussels and clams) can cause serious illness. The two chief sources of contamination are paralytic shellfish poison (PSP) and human sewage. Fisheries and environmental agencies maintain a surveillance of shellfish growing areas to ensure that only safe shellfish reach the market and to warn the public of unsafe beaches.

Anyone interested in catching and eating bivalve molluscs should follow the safety guidelines below:

Check with the local fishery officer (see front cover for phone numbers of offices) for an update on the safety of the shellfish beaches in your holiday area.

Do not harvest shellfish from:

- **PSP (Red Tide) closed areas**, including statistical areas 1 to 11, 13 and 21 to 27 (see maps on pages 12-14).
- **Sewage Contaminated closed areas**, as listed in Schedule 1 (pages 16-19), and as shown on the southern map (pages 12-13). On the northern map, sewage contamination areas are not shown because the affected areas are also closed due to PSP.
- **Areas susceptible to sewage contamination from urban or agricultural upland uses.**
- **Major boat anchorage locations.**

Do not eat raw shellfish unless the shellfish have been taken from clean waters. Bacteria are destroyed if the shellfish is well cooked. If stored, the shellfish should either be frozen or held at a temperature below 7°C.

Note that paralytic shellfish poison and sewage contamination only affect bivalve molluscs, e.g. shellfish with two shells. Other shellfish, such as shrimps, prawns, crabs, abalone, etc., as well as fin fish, are not affected. However, care should be taken in handling all shellfish. For instance, cooked crabs should not be rinsed in contaminated water.

Paralytic Shellfish Poisoning (PSP)

Sometimes, during the summer and fall, a minute and poisonous marine organism called *Gonyaulax* blooms in large quantities. Bivalves, which are filter feeders, concentrate the organism in their digestive tracts but are themselves immune to the effects of the poison. However, humans who eat these contaminated shellfish run the risk of becoming seriously ill.

People eating shellfish should be aware of the symptoms of PSP. The first indication of poisoning is a numbness or tingling of the lips and tongue, which spreads to the fingers and toes. These symptoms are followed by a loss of muscular coordination, terminating in paralysis and inability to breathe.

At the first sign of symptoms **induce vomiting**, take a laxative and drink a solution of baking powder or baking soda, then get **medical attention as quickly as possible**.

One bivalve species, the butter clam, retains PSP for years after a *Gonyaulax* infestation. About 80 per cent of the poison is contained in the siphon (neck) and gills. As a precaution, open butter clams by steaming them and remove the siphon and gills before eating the meat. It is also recommended that the liquid released by steaming be discarded. In the case of scallops, restrict the consumption to the adductor muscles. Scallops will concentrate the PSP toxin in the gut.

PSP (Red Tide) Closed Areas

Because of the regular recurrences of PSP outbreaks in the outside waters and the impossibility of surveying every beach on the coast continually, **statistical areas 1 to 11 and 21 to 27 are permanently closed** for the recreational harvesting of bivalve molluscs. **Area 13 is also closed** due to high residual levels of toxin from PSP blooms in 1981. In addition, **areas 12, 15 and 16 are closed** for the recreational harvesting of butter clams because of the continuing presence of toxin. For example, in January 1982, butter clams from Egmont, in area 16, had a PSP level exceeding the safety limit.

Johnstone Strait and Strait of Georgia are under regular surveillance by the Department of Fisheries and Oceans. Localized closures will be instituted when a PSP bloom has been detected through analysis of samples from commercial catch landings or from monitoring stations in the Strait of Georgia. Check with the local fishery officer for an update of the PSP closed areas.

Sewage Contamination

Bivalve shellfish accumulate sewage bacteria from the waters in which they grow. Schedule 1, below, lists all the areas that have been identified as sewage contaminated areas. The harvesting of bivalve molluscs from these areas is prohibited. The closures are in place for your protection to prevent the transmission of sewage related diseases due to the consumption of contaminated shellfish.

In addition to noting the contaminated areas identified in Schedule 1, care should be taken not to harvest bivalve molluscs from waters exposed to potential contamination sources such as:

- sewage treatment plants or collection systems serving urban areas
- seepage from poorly operating septic tanks and tile fields; agriculture, and urban runoff (stormwater)
- sewage discharges from anchored boats. Recreational boating activity, and more specifically, overboard discharge of domestic sewage, has caused the summer closure of a number of anchorage areas in the south coast waters. In fact, any wharf or harbour area where significant boating activity occurs should be considered potentially contaminated.

Schedule 1 —

Areas Contaminated by Sewage

Section 19 of the Pacific Shellfish Regulations stipulates as follows: No person shall fish for shellfish in any of the areas described in Schedule 1 (listed below) which have been determined by the Minister of National Health and Welfare to be contaminated areas.

The waters and tidal foreshore described below are closed to shellfish — oysters, clams, mussels and any other bivalve molluscs.

General

Any area within 125 m of any wharf.

Area 12

That portion of **Hardy Bay** lying inside a line drawn from Daphne Point, on the east side of Hardy Bay, to Duval point, on the west side, except the channel between Duval Island and Vancouver Island.

The waters and tidal foreshore of **Echo Bay, Gilford Island** lying within 300 m of any part of the boat moorage.

That portion of the waters and tidal foreshore of **Beaver Harbour, Port Hardy** lying inside a line drawn from Thomas Point through Cormorant Rock to Vancouver Island, except the small unnamed island immediately to the south of Shell Island.

Area 13

The waters and tidal foreshore of **Quathiaski Cove, Quadra Island** lying inside a line drawn across the mouth of the cove to and including Grouse Island.

The waters and tidal foreshore of **Mansons Landing, Cortes Island** lying within 900 m of the government dock, excluding Manson Lagoon, except that shellfish may be taken from September 15 to April 30 each year.

The waters and tidal foreshore of **Heriot Bay, Quadra Island** lying within 250 m of the government float and the ferry wharf.

That portion of the tidal foreshore from Middle Point, north of **Duncan Bay**, to a point on the foreshore midway between Pinecrest and Evergreen roads.

The waters and tidal foreshore of **Drew Harbour, Quadra Island** lying inside a line drawn from the northernmost tip of Rebecca Spit across the entrance of Drew Harbour to its western headland, except that shellfish may be taken from September 15 to April 30 each year.

That portion of the tidal foreshore of **Gorge Harbour, Cortes Island** lying 300 m west of the Gorgeview Marina Wharf and 300 m east of the government wharf, except that shellfish may be taken from September 15 to April 30 each year outside of the standard wharf closure boundaries.

The tidal foreshore lying 1000 m northward from the mouth of **Simms Creek** and 500 m southward from the mouth of Simms Creek.

Those waters lying within a 300 m radius from the mouth of **Willow Creek**.

Area 14

The waters of **Comox Harbour** lying inside a line drawn from Gartley Point northeasterly to the light buoy at Comox Bar and thence northwesterly to the northern extremity of Goose Spit.

The waters and tidal foreshore of **Deep Bay, Baynes Sound** lying within 300 m of the government wharf.

The waters and tidal foreshore of **Union Bay, Baynes Sound** lying within 300 m of the government wharf.

The waters and tidal foreshore within a 300 m radius of the ditch entering the Strait of Georgia at a point 2.5 km south of the intersection of Knight Road and Lazo Road at **Point Holmes** northeast of **Comox** (49°31'36"N 124°52'00"W).

That portion of the tidal foreshore on the west side of **Denman Island** from Denman Point approximately 700 m to the southern boundary of Lot 245, Lease 950, ref. LD 026853, Nanaimo Land District, except that shellfish may be taken from December 1 to August 31.

The waters and tidal foreshore extending from the foot of Yambury Road, **Eagle Crest** westward to the western end of Seacrest Place, Eagle Crest.

The waters and tidal foreshore of **Qualicum Beach** lying between the foot of Surfside Drive at the western headland and Hall Road at the eastern headland of Qualicum Beach.

The waters and tidal foreshore of **Kye Bay** lying within a 500 m radius of Lazo Road.

Area 15

The waters and tidal foreshore from the mouth of **Powell River** north to, but not including, Scuttle Bay.

The waters and tidal foreshore of **Scuttle Bay** lying within a 200 m radius of the foot of Kalahanie Drive.

The intertidal zone at the head of **Theodosia Inlet** lying inside a

line drawn from the Percy Logging Company dock on the south side of the inlet to the small peninsula directly across on the northern side of the inlet.

The intertidal zone at the head of **Thors Cove, Lancelot Inlet.**

The intertidal zone lying within a 200 m radius of the unnamed creek entering at the head of **Okeover Inlet.**

The waters and tidal foreshore of **Lund Harbour** lying inside a line drawn from the peninsula at the northern end of the harbour entrance to the point of land at the southern entrance to the government wharf.

The waters and tidal foreshore of the area known as **Prideaux Haven** including **Melanie Cove** and **Laura Cove** bounded on the west by a line drawn at the narrowest point between Eveleigh Island and the Mainland coast and on the north by a line drawn from Lucy Point on Eveleigh Island to the westernmost tip of Scobell Island and thence from the easternmost tip of Scobell Island to Copplestone Point, except that shellfish may be taken from September 15 to April 20 each year.

The waters and tidal foreshore of **Tenedos Bay** lying inside a line drawn from the eastern tip of Bold Head northeast to the southern headland of the easternmost bay of Tenedos Bay, except that shellfish may be taken from September 15 to April 30 each year.

The intertidal zone lying between **Allies Island** and **West Redonda Island**, except that shellfish may be taken from September 15 to April 30 each year.

The waters and tidal foreshore of **Roscoe Bay, West Redonda Island**, except that shellfish may be taken from September 15 to April 30 each year.

The waters and tidal foreshore of **Squirrel Cove, Cortes Island** lying inside a line drawn at the narrowest points between Cortes Island and the eastern and western shores of Protection Island at the entrance to Squirrel Cove, except that shellfish may be taken from September 15 to April 30 each year.

The waters and tidal foreshore of **Cortes Bay, Cortes Island** lying inside a line drawn at the entrance to the bay, except that shellfish may be taken from September 15 to April 30 each year.

The waters and tidal foreshore of **Von Donop Inlet, Cortes Island**, except that shellfish may be taken from September 15 to April 30.

The waters and tidal foreshore of **Refuge Cove, West Redonda Island** lying inside a line drawn across the head of the cove, from a point on the north foreshore 400 m from the centre of the bulk oil storage tank situated near the head of the cove, to a point on the south shore 275 m from the centre of the bulk oil storage tank.

The waters and tidal foreshore of **Grace Harbour** lying inside a line drawn from Moss Point to Scott Point, except that shellfish may be taken from September 15 to April 30 each year.

Area 16

That portion of **Pender Harbour, Sechelt Peninsula** lying between a line drawn from the southernmost tip of the point between Farrington Cove and Duncan Cove to government floats of Donnelly landing on the northern tip of Beaver Island and the bridge at Bargain Narrows.

The waters and tidal foreshore from **Myrtle Point** to the mouth of Powell River.

That portion of **Secret Cove, Sechelt Peninsula** lying inside a line drawn from the point on the mainland nearest the northwest tip of Turnagain Island, thence following the east coast of Turnagain Island to its most southerly point, thence southeast to a point on the mainland opposite.

That portion of **Sargeant Bay, Sechelt Peninsula** within a 300 m radius from the mouth of the unnamed creek entering the northernmost area of the bay.

The waters and tidal foreshore of **Lang Bay** lying within a 150 m radius of the mouth of Whittall Creek.

The waters and tidal foreshore of **Gillies Bay, Texada Island** lying within an 800 m radius of the mouth of Cranby Creek, entering at the head of Gillies Bay.

Area 17

The waters and tidal foreshore of that portion of **Ladysmith Harbour** lying inside a line drawn from Sharpe Point to Boulder Point and a line drawn from a point situated 400 m northwest of Woods Island and a point situated 850 m northwest of the mouth of Rocky Creek.

The waters and tidal foreshore of that portion of **Ladysmith Harbour** lying to the west of a line drawn from a point situated 140 m northwest of the mouth of Bush Creek to the closest point on the opposite shore of the harbour.

The waters and tidal foreshore of that portion of **Chemainus Bay** lying inside a line drawn from Bare Point light through Hospital Rock to the mouth of Askew Creek.

The waters and tidal foreshore lying inside a line drawn from the old wharf located about 600 m west of Sherard Point to the North Reef light, south of a line drawn from that light to the southern tip of **Willy Island**, and south of a line drawn from Willy Island to the northernmost tip of land on the southern bank at the mouth of the **Chemainus River**.

The waters and tidal foreshore of **Departure Bay** and **Nanaimo Harbour** from Horswell Bluff to Jacks Point.

The waters and tidal foreshore of **Newcastle Island**, excluding the eastern foreshore from Nares Point to a point 125 m north of the provincial campsite boat dock.

The waters and tidal foreshore of **Protection Island** lying within a 300 m radius of the Lee Shore Marina docks.

The waters and tidal foreshore of **Pirates Beach, Protection Island** lying inside, that is easterly, of a line drawn from Goose Point southeast to Gallows Point.

The waters and tidal foreshore of **Degnan Bay, Gabriola Island** lying within 250 m of the government wharf.

The waters and tidal foreshore of **Silva Bay, Gabriola Island** lying within a line drawn from the southern tip of Law Point to the northwestern tip of Sear Island, southwesterly to the shoreline of Gabriola Island.

The waters and tidal foreshore of **Montague Harbour, Galiano Island** lying inside a line drawn from the eastern tip of Gray Peninsula to Winstanley Point.

The waters and tidal foreshore of **Whaler Bay, Galiano Island** lying inside, that is southeast, of a line drawn from Cain Point to the western shore of Galiano Island along a bearing of 265°(true).

The waters and tidal foreshore of **Long Harbour, Saltspring Island** lying within a 305 m radius of the Ferry Slip.

The tidal foreshore of **Saltspring Island** lying 1500 m northwest and 500 m southeast of the Malaview Estates sewage treatment plant outfall pipeline.

The waters and tidal foreshore lying within 450 m of the government wharf located at the **Indian Mission School, Kuper Island.**

The waters and tidal foreshore of the large bay on the west side of **Tent Island** lying between two white fishing boundary signs.

The waters of **Clarke Bay, Gabriola Island** lying within a line drawn from the northeastern tip to the northwestern tip of the land enclosing the Bay.

The waters and tidal foreshore of **Taylor Bay, Gabriola Island** lying within a 400 m radius of the most northeastern point of Taylor Bay.

The waters and tidal foreshore of **Descanso Bay, Gabriola Island** lying within a 70 m radius of the culvert entering the southern end of the Bay.

The waters and tidal foreshore of **Pirate's Cove, De Courcy Island**.

The tidal foreshore of Lantzville from Peterson Road eastward to a point 50 m east of the boat ramp at the **Shoregrove Resort**.

The waters and tidal foreshore of **Duck Bay, Saltspring Island** lying inside, that is eastward, of a straight line drawn due north from the first headland on the south side of Dock Point to the opposite shore.

The waters and tidal foreshore of **Vesuvius Bay, Saltspring Island** from a point on the shore 150 m north of the Ferry Slip to a point on the shore 500 m southeast of the terminal.

The waters and tidal foreshore of **Booth Inlet, Saltspring Island** lying eastward of a straight line drawn across the narrowest point of the Inlet from a point at 123°32'18''W 48°51'34''N, northwest to a point on the opposite shore at 123°32'15''W 48°51'50''N.

Area 18

The waters and tidal foreshore of **Cowichan Bay** lying westerly of a line drawn from Separation Point to Cherry Point.

The waters and tidal foreshore lying between **Cherry Point** and **Hatch Point**.

The waters and tidal foreshore at the head of **Fulford Harbour, Saltspring Island** lying inside, that is northward, of a line drawn from a point at 123°27'15''W 48°45'55''N on the western shore to a point at 123°26'32''W 48°46'04''N on the eastern shore.

The waters and tidal foreshore of **Ganges Harbour, Saltspring Island** including Walter Bay lying inside or northwest of a line drawn from the western tip of Walter Bay Spit to the west end of Goat Island and thence westerly to the shore of Saltspring Island during the period October 1 to May 31.

The waters and tidal foreshore of **Ganges Harbour, Saltspring Island** lying inside or northwest of a straight line drawn from the western tip of Walter Bay Spit northwest to a point on the northern shore at 123°29'41''W 48°51'29''N during the period of June 1 to September 30.

The waters and tidal foreshore at the head of **Burgoyne Bay, Saltspring Island** lying inside, that is eastward, of a line drawn from a point at 123°31'24''W 48°47'22''N on the southern shore to a point on the opposite shore at 123°30'39''W 48°47'43''N.

The waters and tidal foreshore of **Thieves Bay, North Pender Island**.

The waters and tidal foreshore lying inside, that is north, of a line drawn from Skull Inlet reef to **Hay Point, South Pender Island**.

The waters and tidal foreshore of **Hope Bay, North Pender Island** lying inside, that is south, of a line drawn from the land end of the government dock to Auchterlonie Point on the opposite shore.

Area 19

The waters and surrounding tidal foreshore of **Esquimalt Harbour** lying inside a line drawn from Macaulay Point to Fisgard Island light.

The waters and tidal foreshore lying inside a line drawn from

Fisgard Island light to the southernmost point of Esquimalt Lagoon and including Esquimalt Lagoon.

The tidal foreshore on the east side of Saanich Peninsula from the **Saanich Peninsula-Piers Island** cable marker, on the shore of Saanich Peninsula, southward to a point 1000 m south of the boat launching ramp at Island View Beach.

The tidal foreshore on the east side of **Saanich Peninsula** lying from a point on the shore parallel with the northern end of Parker Road, Cordova Bay, southward to Ten Mile Point.

The waters and tidal foreshore including Mill Bay, extending from Hatch Point southward to the foot of Frayne Road in **Mill Bay, Saanich Inlet**.

The waters and tidal foreshore of **Deep Cove, Saanich Inlet** lying inside, that is easterly, of a line drawn from Moses Point to Coal Point.

The tidal foreshore of **Patricia Bay, Saanich Inlet** lying between the northern boundary of the Union Bay Indian Reserve and the foot of Sangster Road.

The waters and tidal foreshore of **Thomson Cove, Saanich Inlet** lying inside, that is easterly, of a line drawn between the northern headland of Thomson Cove and Henderson Point.

The waters and tidal foreshore of **Brentwood Bay**, including Tod Inlet, lying inside, that is southerly, of a line drawn from Sluggett Point to Willis Point.

The waters and tidal foreshore of **Victoria Harbour** lying inside a line drawn from Macaulay Point to Holland Point, including the Gorge Waters.

The tidal foreshore of **Vancouver Island** from Ten Mile Point to Holland Point.

Area 20

The waters and northern tidal foreshore of **Sooke Basin** from Billings Point to the most southerly point of land between Copper Cove and Hutchinson Cove.

The northern tidal foreshore intertidal waters of **Sooke Harbour** from Harrison Point to the most southern point of land on the western bank of the Sooke River, excluding oyster lease Lot 207.

The waters and tidal foreshore of **Sooke Basin** lying within 210 m of the wharf at the Grouse Nest Resort.

The waters and tidal foreshore of the large bay south of **Roche Cove, Sooke Basin** lying east of a line drawn from a point 48°21'53''N 123°38'14''W to a point at 48°22'06''N 123°38'06''W.

The waters and tidal foreshore of **Sooke Basin** lying within a 125 m radius of a point at 48°21'56''N 123°38'46''W near the mouth of Anderson Cove.

The waters and tidal foreshore of **Anderson Cove, Sooke Basin** lying within a 60 m radius of the most northerly point of land lying between the two streams entering the northeast corner of Anderson Cove.

The waters and tidal foreshore of **Sooke Basin** southeast of **Hill Head** lying within a 125 m radius of a point at 48°22'23''N 123°40'53''W.

The waters and tidal foreshore of **Sooke Inlet** lying within a 125 m radius of the mouth of the stream entering the northeast corner of the large bay located between Woodward Point and Simpson Point.

Area 23

The waters and tidal foreshore of **Bamfield Inlet** lying inside a line drawn from Aguilar Point light to the northern point of the penin-

sula at the confluence of Grappler Inlet and Bamfield Inlet.

The waters and tidal foreshore of **Ucluelet Inlet** lying inside a line drawn from the tip of the southern promontory of Spring Cove on Ucluth Peninsula to the tip of the southern promontory of Stuart Bay on the opposite side of the inlet.

Area 25

Friendly Cove lying inside a line drawn from Yuquot Point to the navigation light on San Rafael Island and thence due north to Nootka Island.

Area 28

The waters and tidal foreshore of **Burrard Inlet, Indian Arm** and **Vancouver Harbour** lying inside, that is easterly and northerly, of a line drawn from the western end of the Fraser River North Arm Jetty to Point Atkinson.

That portion of **Horseshoe Bay** lying inside a line drawn due east from the northern tip of **Tyee Point** to the opposite shore of Horseshoe Bay.

The tidal foreshore of **Plumper Cove, Keats Island** lying within a 300 m radius of the Provincial Park wharf, except that shellfish may be taken from September 15 to April 30 each year.

The tidal foreshore lying from the mouth of **Chaster Creek** to a point onshore, 400 m northeast of the Gibsons sewage treatment plant outfall sign.

The tidal foreshore from **Steep Bluff to Soamas Point**.

The intertidal area at the head of **Port Graves, Gambier Island**.

The tidal foreshore lying within a 200 m radius of the Camp Fircom sewage outfall, **Halkett Bay, Gambier Island**.

The intertidal area of that portion of the foreshore known as **McNab Creek**.

The tidal foreshore lying 200 m to the west and 400 m to the east of the mouth of **Potlatch Creek**.

The tidal foreshore of **Deep Bay, Bowen Island** lying inside a line drawn from the red navigation beacon on the south shore of Deep Bay to the foot of Ocean View Road.

The intertidal zone at the mouth of **Grafton Creek, Grafton Bay, Bowen Island**.

Area 29

The waters and tidal foreshore of **Boundary Bay, Mud Bay** and **Semiahmoo Bay** lying inside, that is northerly, of the International Boundary line.

The waters and tidal foreshore in the **Strait of Georgia** lying inside a line drawn from the International Boundary through the westerly end of Tsawwassen Causeway to the light at Sand Heads and thence to the western end of the Fraser River North Arm Jetty.

Tidal Water Fishing Methods

Trolling

Trolling is the most popular form of salmon fishing. Artificial lures such as plugs and spoons are effective while whole and strip herring are often trolled with a herring dodger, sometimes called a flasher.

A strong 10-20 kg test-leader, 50-100 cm in length should be used between dodger and lure. Slip or drop-away sinkers of 100 g to 500 g are favourites. There is no limit on the weight of a drop-sinker but fixed or slip-sinkers may be only one kilo or less.

Mooching

The true moocher is an angler who keeps the fishline at a 45 degree angle over the stern by moving the boat. But whether fishing from anchor or moving slowly, the procedure for mooching is the same. Usually a line with 60 g to 100 g of weight is lowered so the bait is a few feet from bottom. The hook is baited with live, strip-cut or plug-cut herring. (A plug cut is a whole herring minus entrails and with the head cut off at a slant).

Bucktailing

Bucktailing, better described as streamer fly-trolling or flashtailing, hits its peak about August in Georgia Strait. A bucktail is trolled alone at about three knots, although the lure also can be used with a leader of 50 to 100 cm long behind a dodger.

Use of little or no weight is recommended when a line is trolled in the prop wash 15 m or so astern. Sometimes a tiny spinner is added ahead of the fly.

Bucktailing takes a fair amount of skill, but can prove exciting.

Stripcasting

Stripcasting is a special way to try for salmon. The equipment required is basically a mooching rod, which is a 270 to 360 cm rod with limber tip, and a single-action reel holding 300 m of seven to 12 kg test "hard" monofilament line.

Cast a herring strip and a sinker-weight of 15 to 100 g and retrieve in pulls of about one metre at a time. The herring strip usually is cut on the thin side, tapering almost to skin at the tail.

Downrigger

The downrigger is gaining wide use as a method of taking trolled lures deep for salmon. It is a hand-operated winch device or "gurdy" used to lower a heavy weight on the end of a strong line. (See sections on *Hookups* and *Gear Restrictions*.) A fishing line is attached to the downrigger line by an automatic

release clip which must release the fishing line when a fish takes the lure, allowing the fish to be retrieved by rod and reel. "Meat" or non-releasing lines are banned.

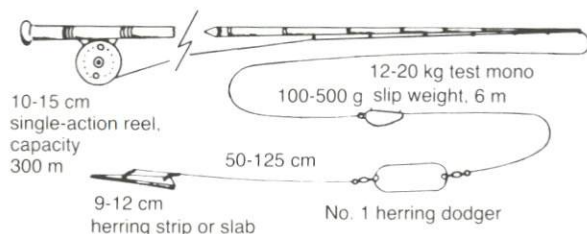
Hookups

Trolling

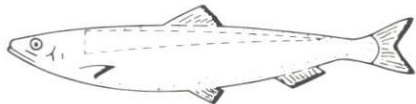
The Department of Fisheries discourages the use of treble-pronged (triple) hooks for trolling because they can result in damage to undersized fish that need to be released alive. On casting lures such as the "buzz bomb" and the various kinds of "sildas", triple hooks permit accidental snagging of fish outside the mouth.

Standard trolling hookups

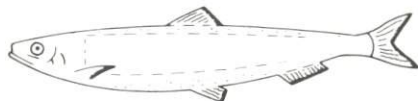
180-240 cm fibreglass or cane rod (fairly stiff). The maximum fixed weight permitted for trolling is one kg.



Strip cut



Slab cut — include tail

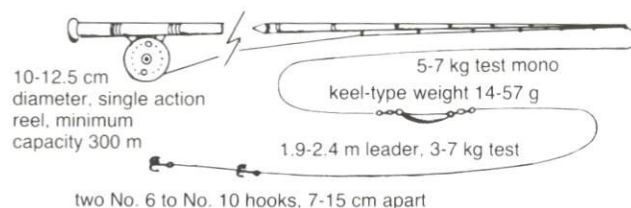


Mooching

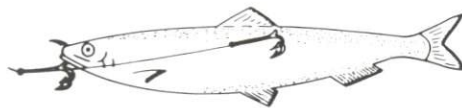
When mooching small, live bait fish, anglers often feel their efficiency is reduced by the use of single-pronged hooks in the tandem-hook leader used for this type of angling, although single hooks can be used successfully for larger bait. Until studies are available indicating that larger, single-pronged hooks, used in pairs or singly, are equally efficient, restrictions against treble-pronged hooks are unlikely. One prong of each treble hook is buried in the flesh of the bait fish, leaving two prongs showing slightly to hook the salmon. Sometimes a dead herring is used and the first treble hook is positioned differently, as illustrated.

Standard mooching hookup

270-360 cm rod, fairly stiff at butt, very limber last 60 cm.



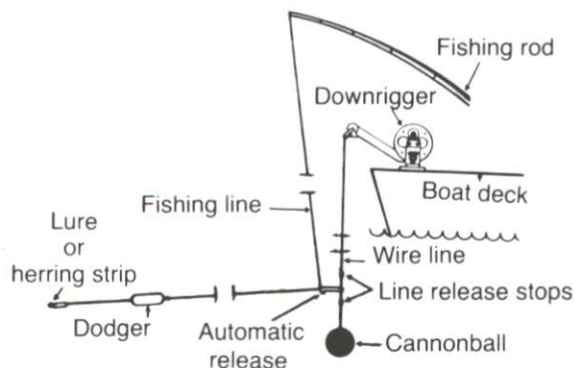
Dead herring hookup — mouth kept closed with first treble hook. Second hook behind dorsal fin.



Live herring hookup — first hook across top of nose to allow herring to breathe. Second treble hook behind dorsal fin.



Downriggers — See sections on *Tidal Water Fishing Methods* and *Gear Restrictions*. The use of a fixed or "meat" line is prohibited but a fixed weight (sinker) up to one kg is permitted.



How to Unhook Undersized Salmon

Because fish of all sizes share the same feed, anglers frequently catch undersized salmon.

Whether or not these salmon survive to harvestable size depends on the care taken to release them unharmed. At present, the mortality rate for salmon played and released at sea is high and this seriously depletes fish stocks. A few simple rules can help:

- **Reduce scale loss**

Avoid touching the fish or letting it come into contact with a net or the boat. The sea scales on immature salmon are loosely attached and can be wiped away with a stroke of the hand. Removal of scales allows dehydration of fish and 25 per cent scale loss can prove fatal.

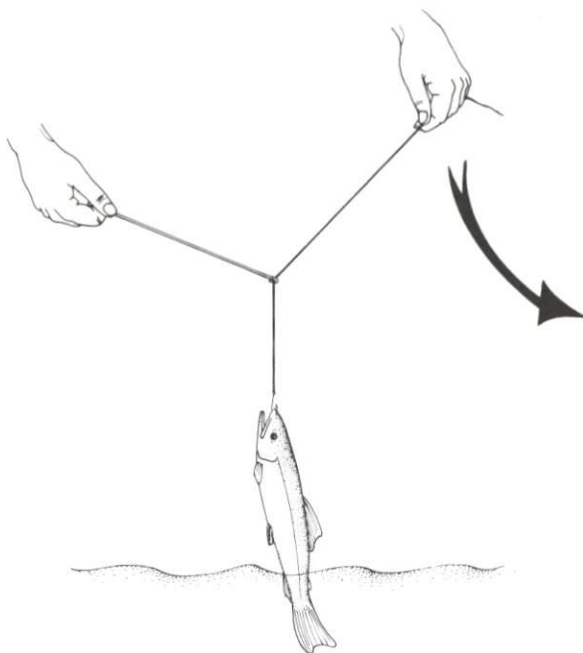
Keep the fish in, or at least over, the water to reduce handling and increase its chance of survival.

- **Use a hook releaser**

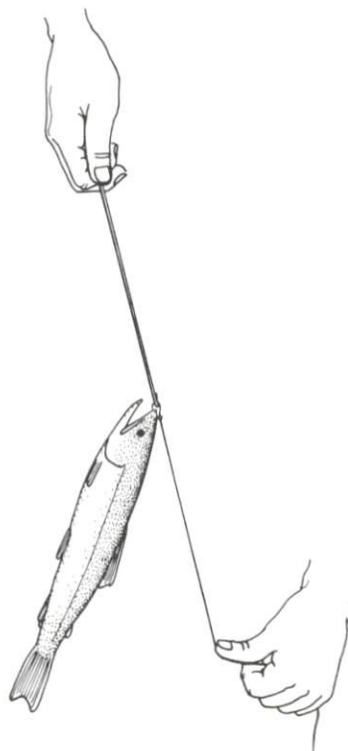
Some form of hook releaser is helpful to free lightly hooked salmon without touching the fish. The most basic device is a straightened coat hanger with one end looped to form a handle and the other bent into a small U-shape. Some anglers use long-nose pliers or a gaff as a hook releaser. Becoming popular is the "salmon-saver" device sold in sport shops.



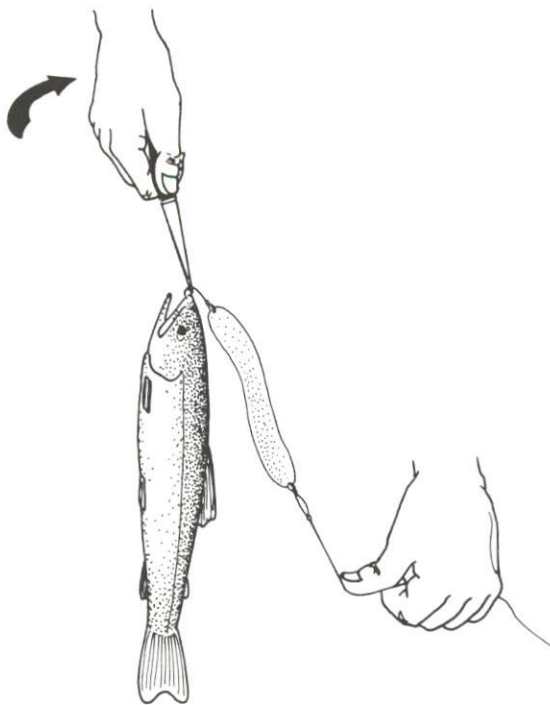
Wire hook releaser.



Slide releaser down to hook, pulling leader in opposite direction.



Pull down on leader and lift hook releaser, inverting fish hook.



If using long-nosed pliers, lift and rotate fish hook while pulling down on leader.

- **Sacrifice your hook**

At times it is best to flatten the barb or cut the hook to avoid severely wounding the fish. A hook that is swallowed, gill-caught or eye-caught is often best left in the fish. Unless the hook is stainless steel, it will soon rust away, with little harm to the fish.

- **Use a single hook**

When a fish is caught on a two-pronged or treble-pronged hook, considerable handling may be necessary to release it. The opposing tensions make it difficult to free the fish without tearing a great deal of tissue.

Whenever possible, fish with single-pointed, corrodable hooks, particularly when trolling. Many fishermen find single-pointed hooks more efficient than treble because the three points of a treble hook can prevent adequate barbing. Mooching rigs with large single-pointed hooks sometimes are preferred because, being larger, they tend to miss small salmon while hooking and firmly holding the larger ones.

Reviving fish

Fish caught by anglers and played to the boat usually are in a form of shock and, if released, may need some seconds to recover. Unless a fish is active enough to dart away upon being unhooked, it should be held gently upright in wet hands and moved fore and aft, swishing water through the gills. Although grasping active fish with dry hands tears vital scales loose, and restraining active fish with wet hands requires too much squeezing of vital organs, a dazed or unconscious fish must be gently held in water with wet hands and moved to and fro until it is conscious and can swim off.

Non-Salmonid Sport Fishery

Rockfish, cod, flatfish (flounder and sole), perch and dogfish are abundant along the Pacific Coast. These white-meat fish are almost everywhere and are relatively easy to catch. Many fishing places can be spotted at low tide or on a marine chart, but nothing beats local knowledge for good fishing holes. Rocky areas, pilings, reefs, kelp beds or just about any type of cover are likely spots. Without a boat, try fishing the shoreline. Jetties at various ports are good spots for rockfish, ling and greenling, but obtain access permission first.

The most practical all-round tackle is a medium-weight rod of 250 cm or so with a relatively stout (five to 10 kg) line on either a conventional or spinning reel. Most deep-water species are hardy types so a light-rod tip is not necessary.

At least 10 types of **rockfish** (e.g. red snapper) are common in B.C. waters. Use a standard salmon mooching rig and whole or plug-cut herring bait. Fish on or just off the bottom. A live herring on a single-hook leader off a three-way swivel with a substantial weight is also good. A jig or a spoon works well when lowered to rocky bottom and jigged up and down. Bounce the jig or spoon off the bottom or retrieve in irregular jerks. Good results may be achieved with any heavy, shiny metal lure on mooching gear.

The same type of gear is good for **flatfish**. They sometimes will strike a jig fished just clear of the bottom and will also take live or cut bait. The best method is to drift over a sandy or muddy bottom or, if fishing from a dock, throw out the jig and let it lie.

The shoreline and intertidal zone (area between high and low tide) are good places for fish like **flounder, sole, perch and sculpin (bullhead)**. The piling under piers provides good sport on light tackle for striped **perch**. Tie up to a pile at low tide and scrape some mussels off, pry them open and string the meat on the hook. Then keep the bait just off the bottom. Very tiny crabs are superb bait.

Surf fishing along the ocean beaches can also yield good catches of perch. Use a long, limber rod and plenty of line capable of sending an 85 g weight 30 m or so into the surf. Clam necks, shrimps, very small shore crabs or marine worms are good bait.

Lingcod, pollock, sablefish, greenling and dogfish are among the types of fish also caught.

Tips for the Care of Your Catch

When you land your fish, kill it immediately so that it keeps its flavour and freshness. Then put it in a cool place well out of the sun. Clean the fish as soon as possible in the following way: slit its belly and remove the entrails; wash the cavity clean, making sure not to miss anything; remove the gills at the same time to help prevent spoilage.

A refrigerated box is an inexpensive, convenient way to keep the fish cool on the trip home, or wrap it in wet newspaper, ferns, damp moss or burlap. Ice, if available, keeps fish in good, moist condition for longer periods.

Enjoy the fish while still at the peak of freshness.

Safety Tips

- Know the rules of boating and respect the limitations of your boat.
- Follow the regulations for fire precautions and fire extinguishing equipment.
- Always wear a good life jacket, or keep one in close reach, particularly in a small boat, whether or not life saving cushions are carried.
- Keep the bilges of the boat clean, free of oil, gasoline and rags, etc. Vent any enclosed area to the open air. Check the battery and its ventilation.
- Always carry red flares in a watertight container for use in emergencies.
- When engaged in extended cruising, carry the latest corrected charts and related publications. Ensure that your compass is accurate.

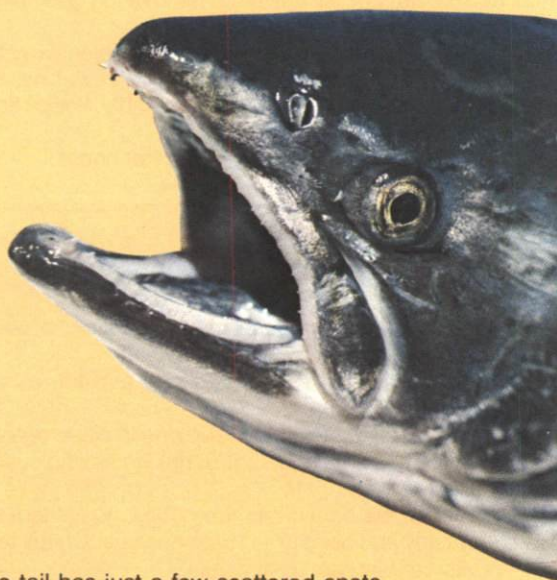
How Can You Tell the Difference?

CHINOOK

COHO

Heads

The chinook has black gums at the base of its teeth; the coho's gums are almost white.



Tails

The flowing chinook tail is covered with spots; the square coho tail has just a few scattered spots.



Further descriptions of chinook and coho plus the three other species of salmon indigenous to the coastal waters of British Columbia can be found on pages 10 and 11.

