

# DFO POLICY : ACCESS TO WILD AQUATIC RESOURCES AS IT APPLIES TO AQUACULTURE

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*National Policy On Access to Wild Aquatic Resources As it Applies to Aquaculture*

## TABLE OF CONTENTS

- DEFINITIONS
  - OBJECTIVES
  - SCOPE
  - CONTEXT
  - ACCESS REQUIREMENTS FOR AQUACULTURISTS
  - GENERAL POLICY AND APPROACH
  - IMPLEMENTATION
    - Management of Access
    - Category 1: Access allowed with no authorization required
    - Category 2: Access authorized through fishing licence or permit on a routine basis
    - Category 3: Non-routine access authorizations
    - Review Process For Consideration of Category 3 Requests
    - National Working Group on Access to Wild Resources
    - Implementation Date for Policy
  - ANNEX I: SUMMARY OF AQUACULTURE REQUIREMENTS, IMPACTS AND PROPOSED APPROACHES
  - ANNEX II: TERMS OF REFERENCE FOR NATIONAL WORKING GROUP ON ACCESS TO WILD RESOURCES (NCAWR)
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## DEFINITIONS

For the purpose of this policy:

- An “aquaculturist” is a company or individual with permission via federal or provincial lease and/or licence to culture specific aquatic organisms on a lease site or private property.
- “By-catch” refers to a part of a harvest taken in addition to the animals deliberately placed on the lease (e.g., for an oyster lease, wild oysters that were on the lease at the time the lease was approved, or ones that have since settled on the lease; for finfish cages, wild animals that may have entered the cages during the grow-out period; in both cases, the wild animals may be harvested with the aquaculturists’ crop).
- “Fish” refers to all aquatic species covered by the Fisheries Act.
- A “juvenile” is considered to be any fish, which is past metamorphosis, but is below age or size at maturity, or which is below the size limit stated in fishery regulation.
- “Lease” refers to an area that has been designated for exclusive use by the leaseholder for the culture and harvesting of fish. The lease is generally restricted to specified species, through conditions of lease or licence.
- “Lease species” refers to a species licensed to be reared on an aquaculture lease.
- “On-growing” is the culturing of fish captured from the wild, on or off lease.
- “Purging” refers to the removal of the majority of individuals of a specified species from a lease prior to the lease being occupied.
- “Relaying” refers to the harvesting of juvenile shellfish off-lease for culturing on lease or from one lease to another.
- “Spat” or “seed” refers to sets of the fertilized egg or larvae of invertebrates usually molluscs. Spat then 'settle' onto suitable substrates sometimes called spatfalls.

## OBJECTIVES

This policy provides a framework and criteria to facilitate access to wild fish and aquatic plant resources for aquaculture purposes, supporting DFO's policy direction on the development of an environmentally sustainable and economically viable aquaculture industry in Canada.

## SCOPE

This policy deals exclusively with direct access to wild aquatic resources for aquaculture purposes where DFO manages that access<sup>[1]</sup>. The purchase of fish or shellfish by aquaculturists from licensed fishers during an open season, the retention of legally caught fish by licensed fishers, or the purchase of fish or shellfish from a licensed aquaculturist, are not encompassed by this policy.

This policy is consistent with the principles set out in the Aquaculture Policy Framework (APF) and national Fisheries Management policies. It recognizes DFO as the lead federal agency for aquaculture and aquaculturists as legitimate users of land, water and aquatic resources; and it outlines how DFO will provide aquaculturists with predictable, equitable and timely access to the aquatic resource base.

Notwithstanding this policy, other policies such as; the Species at Risk Act (SARA), the National Code on Introductions and Transfers, and the Canadian Shellfish Sanitation Program (CSSP), the Fish Health Protection Regulations and the Management of Contaminated Fisheries Regulations (MCFR) apply in the capture and movement of aquatic organisms, consistent with application to others users under similar circumstances.

In addition, this policy does not cover marine mammals.

## CONTEXT

While the long-term goal of the aquaculture industry is generally to minimize the requirement for access to wild stock for culture purposes by becoming self-sufficient, for species where the technology does not exist for hatchery production or the cost of hatchery production is prohibitive, there continue to be situations where access to wild stocks is essential to the development and expansion of the Canadian aquaculture industry. As well, aquaculturists may collect wild fish or plants, on lease, in the ongoing operation of their farms, for example to control predation or as a "by-catch" to the harvest of their crop.

## Aquaculture

DFO and the APF use the United Nations Food and Agriculture Organization (FAO) definition of aquaculture as the cultivation of aquatic organisms, including finfish, molluscs, crustaceans and aquatic plants.

Aquaculture implies private or corporate ownership of the organisms and some form of intervention in the rearing process to enhance production, such as regular stocking, feeding and protection from predators and disease. Aquaculture operations are based on property rights, such as a lease on the site of the culturing operation, and an exclusive use of that site for the harvesting and development of the species being cultured. The policy acknowledges the private property rights confirmed by the lease.

In 2002, DFO adopted the Aquaculture Policy Framework (APF), which states that DFO's vision of sustainable aquaculture development is "to benefit Canadians, now and in the future, through the culture of aquatic organisms, while upholding the ecological and socio-economic values associated with Canada's oceans and inland waters."

The APF orients DFO around a common vision for aquaculture and shapes the development of future departmental regulations, policies and programs with the goal of improving DFO's ability to support competitiveness of the aquaculture industry in Canada and to increase public confidence in the sustainability of aquaculture.

Specifically, the APF:

- Confirms DFO as a regulator and enabler of aquaculture;
- Contributes to DFO's reorientation as a department of sustainable development; and
- Encourages, rather than restrains, responsible aquaculture development.

Three of the APF's nine principles specifically provide direction and support to aquaculturists' requests for access to wild fish resources:

- Recognizing that aquaculture is a legitimate use of land, water and aquatic resources, DFO will work with provincial and territorial governments to provide aquaculturalists with predictable, equitable and timely access to the aquatic resource base.
- In partnership with other federal departments, the provinces and territories, academia and industry, DFO will support responsible development of the aquaculture sector.

- DFO will make every effort to understand the needs of the aquaculture industry and to respond in a manner that is solutions-oriented and supportive of aquaculture development.

## **Fisheries Management**

Access to the wild resource for aquaculturists under this policy is not intended to reduce the access to the resource of existing fishers. Almost all commercial fisheries have been placed under limited entry regimes, which restrict the number of fishing licenses. Many fisheries are fully subscribed, with harvestable biomass allocated to user groups through a planning process. In fact, in some fisheries, DFO and industry face the challenge of rationalizing the capacity represented by existing users.

Most fisheries are now managed through Integrated Fisheries Management Plans (IFMPs). While some of the requirements of the aquaculture industry can be satisfied through the purchase of fish from commercial fishers, there is a need to ensure that the aquaculture requirements, when access to stocks is an issue, are routinely factored into IFMPs. When the Total Allowable Catch (TAC) is fully subscribed (both in competitive and Individual Quota fisheries), then aquaculturalists' request should be accommodated within the fisheries management plans for the species. As the numbers of fish required for aquaculture purposes will generally be very low relative to the stocks and, therefore, not expected to impact on existing users, aquaculturalists' allocations may be in addition to existing allocations.

## **ACCESS REQUIREMENTS FOR AQUACULTURALISTS**

The following section outlines the reasons why aquaculturalists may request access to wild aquatic resources. The types of access requested are summarized in the tables in Annex 1, categorized as they relate to access for developmental purposes and for on-going operations.

### **1. Access to Shellfish "Spat" and Seedstock On- and Off-Lease**

While some species of shellfish "spat" and seedstock can be obtained through commercial hatcheries in various locations, gathering locally, from the wild, by the grower may be more cost effective and for certain species, the only source of supply. Aquaculturalists may wish to collect spat on or off their lease.

### **2. Access to Plants for Feed for "On-Growing" Operations**

Under some circumstances aquaculturists need direct access to wild aquatic plant resources to use as feed and these requests will be considered in the context of traditional fisheries and ecological impacts.

### **3. Access for Broodstock Development**

The development and maintenance of broodstock may require the periodic collection of finfish or shellfish from the wild. The quantities of animals should be minimal, but sufficient to ensure genetic diversity. Access can be for a number of reasons:

- In the research and development (R&D) phase where adults are collected for the development of appropriate techniques to condition and spawn the fish, and to obtain eggs and larvae for studies on early life stages;
- To establish a commercial broodline once culture techniques have been developed; and
- To revitalize or expand existing broodstocks.
- To replace broodstock lost through catastrophic or natural events.

#### 4. Access for “On-Growing” and “Relaying”

The harvesting of wild juveniles for on-growing for aquaculture development may be appropriate:

- For R&D studies conducted during the pre-commercial phase of development in order to evaluate the potential of a new species. If conducted in tandem with broodstock development, the time frame to commercialization can be reduced. Examples of suitable topics for study could include, but not be limited to, stocking density, growth rates, diets, fish health, etc.;
- Where hatchery technology does not exist or is cost prohibitive and the animals can be harvested without detriment to the stock;
- Where the harvest for “on-growing” is biologically sound, economically viable and consistent with conservation objectives; and
- For stocks from discrete areas where winter scouring may regularly kill animals, or where water quality issues prevent a fishery from taking place.

#### 5. Collection of animals not deliberately placed on the lease

As part of ongoing operations, aquaculturists may collect wild animals:

- They may need to remove non-mammalian predators. Generally these species are invasive and do not have commercial value, although there

are exceptions (e.g., manila clam in Pacific).

- While harvesting their crop, particularly bottom-reared species such as oysters and clams, aquaculturists may have a “by-catch” of wild individuals of the same species as the one being harvested. This could be the result of wild stock on the lease when it was occupied or the settlement of spat during the lease operation. It is impossible to avoid harvesting these wild animals, or to distinguish wild individuals from ones placed deliberately on the lease.
  
- In order to facilitate access to a new lease and reduce conflict in communities when there is significant stock of high value on a lease area, and where a number of commercial fishers may be displaced, as a condition to recommending its approval of a lease site, DFO or the province may require that a specified species be harvested from the lease prior to its occupation.[2]
  
- Also while harvesting their crop, particularly finfish in some locations, aquaculturists may have wild animals that have entered their nets at a small size and matured in the cage alongside the farmed species. While it is easy to distinguish the wild from the farmed species as they are different, it is difficult or impossible to avoid harvesting the wild species along with the farmed species. Catch and live release of the wild animals may be possible in some circumstances.

## **GENERAL POLICY AND APPROACH**

### **Consideration of access**

1. In considering access requests, the first priority in managing fish stocks is conservation, followed by First Nations obligations. Beyond that, the needs of aquaculturalists will be given equitable consideration to those of other users in the commercial and recreational sectors.
  
2. DFO will aim to facilitate access for relatively low numbers of wild juvenile or adult fish for limited time periods (e.g., for broodstock development), where populations would face insignificant to low risk from the additional harvest pressure:
  - Where potential risk to stocks are found to be acceptable, aquaculturists may be issued a fishing licence or permit, even when there are policies otherwise prohibiting access (e.g., out of season), with appropriate

restrictions.

- Aquaculturists will be considered for access where there are limits to new entries to a fishery. The holding of a fishing licence or permit will not qualify the aquaculturist for consideration as a core fisher and will have appropriate restrictions.
  - Where IFMPs exist, aquaculturalists will be considered for limited access to stocks (numbers, duration) as part of the management plan, with allocations in addition to existing fisher allocations.
3. Where specific capture techniques, seasons or size of animals are required, DFO will facilitate the use of alternative gear (i.e., not included under fishery regulations), out-of-season capture and undersize individuals, based on criteria to be established by a National Working Group (Terms of Reference in Annex II).

## **Fees and management costs**

4. Aquaculturists will be required to pay licence and other fees to the Crown, consistent with policies for other participants in the fishery and proportionate to the anticipated utilization of the resource.
5. Where fisher groups are contributing financially to stock management, research, etc., aquaculturists may be required to contribute financially to the management group for access to stocks, consistent with policies for other new entrants to the fishery.

## **IMPLEMENTATION**

### **Management of Access**

Levels of access under this policy will always involve small numbers that will not affect existing allocations; if requests exceed thresholds, they will be managed through other fisheries management processes.

The regional aquaculture coordination (RAC) office will be the focal point for implementation of this policy. All inquiries regarding access should be directed there.

The approach that will be taken to authorizing access for aquaculturists can be grouped into three categories:

## **Category 1: Access allowed with no authorization required**

Authorization will not be required for the following activities; however, aquaculturists will be required to notify DFO annually if they expect to, or do, access wild stocks.

Category 1 applies to:

- Spat collection of lease species on a suspension lease
- By-catch of wild shellfish of lease species on-lease.

## **Category 2: Access authorized through fishing licence or permit on a routine basis**

Where harvest levels are insignificant to the wild stock and there are no SARA implications, fishing licences or collection permits will be issued on a routine basis to aquaculturists, on request and with appropriate conditions, within 30 days of the fully documented request. These licences may have more specific seasonal, TAC, or area requirements than a regular licence.

Category 2 applies to:

- Spat collection not covered in Category 1;
- Collection of wild aquatic plants for feed where request is for less than 0.1% of the TAC or 0.1% of harvest volumes where no TAC exists;
- Collection of wild finfish for broodstock development where the request is for less than 0.1% of the TAC or 0.1% of harvest volumes where no TAC exists;
- Collection of shellfish for relaying;
- Collection and sale of specified nuisance species on lease; and
- By-catch of specified wild finfish in nets; by-catch retained and sold.
- Collection and disposal of specified nuisance species on lease, no sale
- By-catch of specified wild finfish in nets; by-catch not retained or sold

### **Category 3: Non-routine access authorizations**

For all other types of access requests by aquaculturists, issuance of fishing licences or experimental permits under section 4 of the Fisheries Act will be considered under the Review Process outlined below. Where there are, or are expected to be, several applications for similar access, access will be looked at on a strategic basis, with individual requests then considered based on access criteria that are developed. The total allocation will be limited by conservation objectives.

Category 3 applies to:

- Collection of low volumes of wild finfish for broodstock development where access may be contentious or does not otherwise fall under category 2;
- Collection of low volumes of wild aquatic plants for feed where the request may be contentious or does not otherwise fall under category 2;
- Collection outside the wild fishery of wild finfish for on-growing;
- Collection of resources where wild fishery is under moratorium, or there are SARA implications;
- Collection and sale of nuisance species on lease other than those covered in Categories 1 and 2; and
- Bycatch of specified wild finfish in nets other than those covered in Categories 1 and 2.

### **Review Process for Consideration of Category 3 Requests**

Requests will be submitted in writing to the Regional Aquaculture Coordination Office (RACO), either directly or via the model used for delivery of services in the area outlining:

- the purpose of the request;
- the species and quantity of fish required;
- the location and time of year for the collection;
- the method of collection; and

- other relevant information required to evaluate the request.

The RACO will circulate to Fisheries Management for their advice, within 10 days, on completeness of information needed for the evaluation of the request, and on the process that will be followed in reviewing the request (e.g., species is part of an IFMP process; SARA species, levels requested are relatively high compared to stock size). The RACO will then advise the applicants of receipt of their proposal and any deficiencies in information within 15 days. They will also provide the process and time frame to be followed in reaching a decision on their request.

Once an application has been accepted as complete, the RAC will then circulate the final application to Fisheries Management, Science Branches and Environment Canada (when involves Species At Risk) for advice on in the potential impact of the request on stocks.

- Unless there is an IFMP process, or another reason has been flagged up front, the advice will be provided to the RACO within 30 days.
- In the case of an IFMP, FM will work with the RACO to ensure that the request is considered within a reasonable time frame, and that the applicant is invited to participate in the process as appropriate.

The RACO will then make a recommendation on access to the Regional Director of Fisheries Management. Unless there is an IFMP, the applicant will be notified of the decision in writing by the Regional Director General, generally within 45 days of receipt of an approved application. If the request is authorized, the notification will include conditions of approval in accordance with the objectives of this Policy.

It is expected that DFO will issue licences and conditions pursuant to the Fishery (General) Regulations as a means to authorize and control fishing activities and resource access requests for aquaculture purposes (most often Sections 22(1), 52, and 56).

In situations in which seasons are set out in regulations, Section 7(1) of the Fisheries Act can be used to provide access outside of the normal fishing season.

Where appropriate, the federal-provincial Introductions and Transfers Committee should be involved at an early stage.

## National Working Group on Access to Wild Resources

A National Working Group on Access to Wild Resources will be established. The Terms of Reference for this Working Group can be found in Annex II.

### Implementation Date for Policy

*Within 30 days of approval by the DMC Sub-committee on Aquaculture*

## ANNEX I: SUMMARY OF AQUACULTURE REQUIREMENTS, IMPACTS AND PROPOSED APPROACHES

ACCESS FOR CULTURE / DEVELOPMENT PURPOSES				
Situation	Expected impact on fish stock	Wild Fishery Interactions	Proposed Policy	Regulatory Issues
1. Collection of spat of a "lease species" for grow-out or for sale a) on-lease  b) off-lease	Insignificant	No traditional wild fisheries	No authorization required.  Routine authorization.	Gear, size, and season outside fishery regulations for some species.
2. Collection of wild aquatic plants for feed a) relatively low level of harvest (less than .1% of TAC)  b) relatively high level of harvest	Insignificant  Insignificant to low	May be wild fishery	Category 2; Routine authorization based on criteria 1.  Category 3	

ACCESS FOR CULTURE / DEVELOPMENT PURPOSES				
Situation	Expected impact on fish stock	Wild Fishery Interactions	Proposed Policy	Regulatory Issues
(more than .1% of TAC)			authorization.	
3. "Relaying" juvenile shellfish from winter scour areas or areas closed due to contamination	Insignificant	May be traditional fishers accessing for "fishery" leases (oysters)	Category 2: Routine authorization based on criteria1.	I&T concerns CSSP concerns
4. Collection of wild fish for broodstock development			Access must be managed as part of IFMPs where they exist.	
a) less than .1% of TAC	Insignificant			
b) more than .1% of TAC	Insignificant	May be wild fishery	Category 2: Routine authorization based on criteria1.	Gear, season and size limits under fishery regulations or practice may or may not be appropriate.
c) collection from stocks at risk or where closed fishery	Insignificant to significant depending on numbers requested	May be wild fishery Fishery may be closed	Category 3 authorization.  Category 3 authorization based on criteria1.	Traceability  SARA implications

ACCESS FOR CULTURE / DEVELOPMENT PURPOSES				
Situation	Expected impact on fish stock	Wild Fishery Interactions	Proposed Policy	Regulatory Issues
<p>6. Collection of nuisance non-mammalian species on-lease, for removal</p> <p>a) for disposal, no sale</p> <p>b) for sale</p>	<p>Insignificant</p> <p>Frequently invasive species</p>	<p>Generally no existing wild fishery; particular animals not be accessible to anyone other than leaseholder.</p>	<p>For species not specified below, authorization may be considered through Category 3.</p> <p>Category 2: Routine authorization required for specified species[3].</p> <p>Category 2: Routine authorization for specified species1.</p>	
<p>7. "By-catch" of wild shellfish of "lease species" on-lease</p>	<p>Insignificant</p>	<p>May be a wild fishery</p>	<p>Prior to recommending lease approval, DFO may wish to specify that some species be purged from lease area before commencing operation on the lease.[4]</p> <p>Once a lease is</p>	

ACCESS FOR CULTURE / DEVELOPMENT PURPOSES				
Situation	Expected impact on fish stock	Wild Fishery Interactions	Proposed Policy	Regulatory Issues
			issued, natural sets as a result of new recruitment become part of aquaculturist's production. No further authorization required.[5]	
<p>8. "By-catch" of species that have entered nets and are harvested along with the target species</p> <p>a) for disposal or release, no sale</p> <p>b) for sale</p>	Insignificant	May be a traditionally fished species but particular animals not accessible to anyone but the aquaculturist.	<p>For species not specified below, authorization may be considered through Category 3.</p> <p>Routine authorization required for specified species1.</p> <p>Routine authorization for specified species1.</p>	

## **ANNEX II: TERMS OF REFERENCE FOR NATIONAL WORKING GROUP ON ACCESS TO WILD RESOURCES (NCAWR)**

### **Preamble**

The long-term goal of the aquaculture industry is generally to minimize the requirement for access to wild stock for culture purposes by becoming self-sufficient. For species where the technology does not exist for hatchery production or the cost of hatchery production is prohibitive, there continue to be situations where access to wild stocks is essential to the development and expansion of the Canadian aquaculture industry.

Pursuant to the Policy on Access to Wild Aquatic Resources, a National Working group (NWGAWR) is being established to develop national criteria to support the application of the policy in key areas, and to review the policy after one year. The following clarifies membership, responsibilities and secretariat functions of the NWGAWR.

### **Membership**

Representation on the NWGAWR consists of:

1	representative from Aquaculture Management Directorate (AMD), NHQ
2	representatives from Resource Management NHQ (East Coast, West Coast)
1	representative from Aquaculture Science
6	Regional Aquaculture Coordinators (one from each DFO Region)
1	representative from Conservation and Protection
1	representative from Legal Services
1	representative from Communications (as needed)

### **Responsibilities**

The NWGAWR is responsible for:

- Developing national criteria in the following areas:
- Determining volume thresholds for an access request to be considered “relatively” low level compared to stock size;
- For providing routine access to juvenile shellfish for relaying;
- To evaluate when “windfall profits” may occur and how this should be managed (e.g., purging leases of certain species);
- For providing access to stocks where fisheries are closed, or there are SARA concerns;

- Other issues that may arise;
- For the following areas, developing national species lists for those species which may be harvested with (1) no authorization (Category 1), and (2) routine authorization (Category 3).
- Nuisance species; and
- Finfish bycatch in cages.
- Development of general conditions of licences / permits for aquaculturists
- Evaluating and updating Policy, after one year and then subsequently;
- Development of recommendations to resolve emerging issues, as necessary
- Development of recommendations as necessary to adapt policy to any DAAP outcomes.

### **Working Group Administration and Operations**

Chair will rotate annually between the NCR and regions. The Working Group will appoint the Chair. AMD will provide secretariat and support services.

The Working Group will:

- meet as required;
- maintain records of decision of meetings;
- develop and maintain a data base of access by aquaculturists, and
- develop annual Access Reports for distribution in the NCR and regions;

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[1] For example, the province of British Columbia manages oyster fishery and access to seed collection; provinces generally manage freshwater fisheries. This policy does not alter any such previously determined jurisdictional decisions or working arrangements.

[2] Where a valuable species is resident on a potential lease area, DFO and the province may require that some of the animals of that species be removed from the lease, prior to the occupation of the lease. It is not the intent to remove all animals in a pre-lease harvest, but to allow a significant portion of the economic value of the wild species to be accrued to the public fishery. Where a pre-lease harvest must be completed before lease occupation, the method of removal of the animals will be negotiated as part of the lease agreement, based on criteria

and conditions established by the National Working Group which support the objective of providing sufficient flexibility to meet local needs. Actions related to removal should be included as part of the CEAA review for the site.

[3] Lists to be developed by National Committee

[4] Criteria to be established by National Committee

[5] i.e., the aquaculturist will be allowed to harvest residual stock and animals that subsequently settle on lease