

## Questionnaire on the status, trade and conservation of non CITES-listed anguillid eels

The term 'specimen' as used in this questionnaire is as defined in Article I, paragraph b) i) and ii) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>1</sup>

### A. NATIONAL AND GLOBAL CONSERVATION STATUS

*Please provide as much information as possible in answer to the questions below – the information should cover at least the last ten years unless otherwise stated<sup>2</sup>*

Country		<b>Canada</b>	
Function of agency completing this questionnaire (CITES Management Authority, CITES Scientific Authority, Wildlife Authority, Police, Customs, Other)		<b>CITES Management Authority and CITES Scientific Authority</b>	
Contact details of agency/agencies completing this questionnaire		<b>Fisheries and Oceans Canada</b>	
Contact person (name, email, job title, function)		<b>Elise Lavigne, Assistant Director, International Fisheries Management (elise.lavigne@dfo-mpo.gc.ca)</b>	
<b>A.1</b>	Is your country a range State of anguillid eels?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>	
		If 'Yes', please indicate which species <sup>3</sup> occur in your country. If 'No', please proceed to Section B.2.1.	
		<b>Species</b>	
		<i>Anguilla australis</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>

<sup>1</sup> (b) "Specimen" means:  
(i) any animal or plant, whether alive or dead;  
(ii) in the case of an animal: for species included in Appendices I and II, any readily recognizable part or derivative thereof; and for species included in Appendix III, any readily recognizable part or derivative thereof specified in Appendix III in relation to the species

<sup>2</sup> Please use additional sheets for any question, if needed.

<sup>3</sup> Three additional species names are occasionally used in relation to freshwater eels – *Anguilla labiata*, *Anguilla malgumora* and *Anguilla nebulosa*. *A. labiata* is sub-population of *A. bengalensis*, primarily found in Africa and should be referred to as the latter. *A. malgumora* is a synonym for *A. borneensis* and should be referred to as the latter. *A. nebulosa* is a synonym for *A. bengalensis* and should be referred to as the latter.

	<i>Anguilla bengalensis</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla bicolor</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla borneensis</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla celebesensis</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla dieffenbachia</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla interioris</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla japonica</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla luzonensis</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla marmorata</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla megastoma</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla mossambica</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla obscura</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla reinhardtii</i>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
	<i>Anguilla rostrata</i>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

**A.2**

Does information exist about the biology of some, or all of, the anguillid species in your country?

Yes

No

A summary of the current understanding of the biology, habitat requirements and distribution of American Eel in Canada is found in DFO 2014. Datasets and information on many important biological traits and characteristics for American Eel are available for most parts of the Canadian range. However, sex-specific or life-stage specific biological information is not always available for each province, jurisdiction or eco-region within Canada. These data sets include information on:

- male and female growth rates in both freshwater and saline water
- elver length
- silver eel (male and female) in freshwater
- silver eel age (male and female) in freshwater and female silver eel age in saline waters
- sex ratio in freshwater and saline waters
- fecundity in freshwater

- natural mortality in freshwater and saline waters
- eel density in freshwater and saline waters

In addition, genetic studies that support the panmixia theory for American Eel have included eels sampled throughout the Canadian portion of the range. Therefore, information on the genetic relationship of American Eels from Canada with the rest of the population is known.

DFO. 2014. Recovery potential assessment of American Eel (*Anguilla rostrata*) in eastern Canada. Fisheries and Oceans Canada (DFO) Canadian Science Advisory Secretariat Science Advisory Report 2013/078.

Pratt, T.C., Bradford, R.G., Cairns, D.K., Castonguay, M., Chaput, G., Clarke, K.D., and Mathers, A. 2014. Recovery Potential Assessment for the American Eel (*Anguilla rostrata*) in eastern Canada: functional description of habitat. DFO Can. Sci. Advis. Sec. Res. Doc. 2013/132. v+49 p.

Cairns, D.K., G. Chaput, L.A. Poirier, T.S. Avery, M. Castonguay, A. Mathers, J.M. Casselman, R.G. Bradford, T. Pratt, G. Verreault, K. Clarke, G. Veinot, and L. Bernatchez. 2014. Recovery potential assessment for the American eel (*Anguilla rostrata*) for eastern Canada: life history, distribution, reported landings, status indicators, and demographic parameters. Can. Sci. Advis. Secretariat Res. Doc. 2013/134.

COSEWIC. 2012. COSEWIC assessment and status report on the American Eel *Anguilla rostrata* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 109 pp. ([www.registrelep-sararegistry.gc.ca/default\\_e.cfm](http://www.registrelep-sararegistry.gc.ca/default_e.cfm)).

**A.3.1**

Does recent information exist about the population status of some, or all of, the anguillid species in your country?

Yes

No

If 'Yes', based on the best available information, what was the status of the wild population of *Anguilla* species in your country over the last 20 years:

Species	Increase	Stable	Decrease	Unknown
<i>Anguilla rostrata</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate the source(s) of information your answer is based on – personal experience and/or communications can be included:

American Eels reared in Atlantic drainages of Canada and the United States are part of a common genetic stock, although the American Eel has not been confirmed to be panmictic because genetic samples are unavailable for the remainder of the species' range. American Eel status trends in Canada can be evaluated from approximately 20 ongoing abundance series. These cover all of the species' continental stages (elvers, yellow eels, silver eels) and are distributed across all provinces inhabited by eels. The most recent peer-reviewed advisory report (DFO 2014) included an examination of abundance trends over 16 years, using data collected to 2012. Series were roughly one third increasing, one third decreasing, and one third stable. A preliminary analysis, not yet peer-reviewed, indicates that for the period starting in 1998 and running in most cases to 2017, Canadian indices were roughly 30% increasing, 30% decreasing, and 40% stable. Because of inter-index variability, it is difficult to postulate a single index that fully reflects trends in American Eel in Canada. However, the status of the available indices in Canada at this time appears to be stable.

DFO. 2014. Recovery potential assessment of American Eel (*Anguilla rostrata*) in eastern Canada. Fisheries and Oceans Canada (DFO) Canadian Science Advisory Secretariat Science Advisory Report 2013/078.

**A.3.2**

In your country, what is/are considered the major threat(s) to *Anguilla* species, listed alphabetically below:

Barriers to migration (including hydro-power)  Climate change  Disease / Parasites  Habitat loss/modification   
Pollution  Predation  Unsustainable/illegal harvest and/or trade  Other (please describe)

The current state of knowledge about threats to both habitat and American Eel in Canada is found in Chaput et al. 2014. The research document provides an assessment of the threats in the five jurisdictions that comprise the species' range in Canada (Ontario; Quebec; Newfoundland and Labrador; southern Gulf of Saint Lawrence; and Atlantic Coast of Nova Scotia and Bay of Fundy).

Threats to American eel examined included directed and by-catch fisheries (harvest of adults and elvers), physical obstructions (habitat loss, habitat fragmentation and turbine-mortality), habitat alteration, parasites, ecosystem changes (changes in prey and predator abundance and non-native species invasions), pollutants (heavy metals, contaminants), boat and ship traffic, underwater electric cables and oil and gas exploration. Climate factors primarily acting in the ocean environment are considered to be important in determining the abundance of American Eel and are treated as a limitation to population recovery rather than a threat. Common threats which score as medium or high level of concern for American Eel across the regions include:

- commercial fisheries for elvers and adult eels
- loss and fragmentation of habitat
- hydro-power turbine mortality
- habitat alteration
- swim bladder parasite
- ecosystem changes

DFO. 2014. Recovery potential assessment of American Eel (*Anguilla rostrata*) in eastern Canada. Fisheries and Oceans Canada (DFO) Canadian Science Advisory Secretariat Science Advisory Report 2013/078.

Chaput, G., T.C. Pratt, D.K. Cairns, K.D. Clarke, R.G. Bradford, A. Mathers, and G. Verreault. 2014. Recovery potential assessment for the American eel (*Anguilla rostrata*) for eastern Canada: description and quantification of threats. Can. Sci. Advis. Secretariat Res. Doc. 2013/135.

COSEWIC. 2012. COSEWIC assessment and status report on the American Eel *Anguilla rostrata* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 109 pp. ([www.registrelep-sararegistry.gc.ca/default\\_e.cfm](http://www.registrelep-sararegistry.gc.ca/default_e.cfm)).

## B. HARVEST CONSUMPTION AND TRADE

B.1.1

Are *Anguilla* species harvested in your country?

Yes

No

If 'Yes', please provide link(s), reference(s) or additional information, paying particular reference to species, life stage, location of harvest and method of harvest.

Management of American eel in Canada is multi-jurisdictional involving five administrative regions of Fisheries and Oceans Canada (Central and Arctic, Gulf, Maritimes, Newfoundland and Labrador, and Quebec) and the Provinces of Ontario and Quebec. The following section provides a summary of American eel management in Canada. A detailed management approach is outlined in TAB 1



TAB 1\_American eel  
management Summar

A summary of fisheries in the 5 administrative regions is summarized below.

- Commercial Fisheries for Yellow and Silver American Eel
- In *Ontario*, the commercial fishery of eel has been closed since 2004.
- In *Quebec*, the eel fishery is conducted in the St. Lawrence Estuary and there are no longer any commercial fisheries upstream of Lac St. Pierre. There are multispecies commercial licences that allow eel catches in Lac St-Pierre to Orleans Island.
- In the *Gulf* Region, the fisheries are managed under Integrated Fisheries Management Plans (IFMPs) for each area office in Prince Edward Island, Gulf of New Brunswick and Gulf Nova Scotia (2007-2010). Licenced areas vary from single watershed, to multiple watersheds, and various proportions of coastal areas. The licence holders are restricted to the type of gear that is set out in their licence. Logbooks are mandatory as per their licence conditions.
- In *Newfoundland and Labrador*, licenced areas vary from single watersheds, to multiple watersheds, and various proportions of coastal areas; sites are restricted and specified on river systems; fishers are not permitted to move from their designated site; site locations are noted by latitude and longitude coordinates in licence conditions; transferring sites is not permitted on river systems, unless the fish harvester meets stringent criteria.
- In *Maritimes* Region, the commercial fishery has limited entry (no additional licences since 1993). Licence holders are restricted to the

area (typically county), type of gear and seasons set out in their licences. Generally, eel catches are more regulated by water temperature than by official seasons. Commercial fishing locations are virtually in all inland and tidal waters with most of the landings occurring from May to November.

#### ***Commercial Fisheries for Elvers***

The commercial elver fishery is conducted in the Maritimes Region (9 licences). Elvers are defined in regulations as eels with a maximum length of 10 cm. The elver fishery was developed as an Enterprise Allocation fishery; licence holders have assigned fishing areas and individual quotas (total annual fishery quota is 9,960 kg wet weight per annum). There are daily hail-in and hail-out requirements, 100% mandatory weigh-out and daily landings reports to a Dockside Monitoring Company.

Elver fishers are only authorized on rivers that do not have established commercial fisheries for large eels, and there are limits on catch from any particular river (with a maximum quota of 400kg (wet weight) per river annually) and screening devices are required on elver pots and traps to prevent bycatch. Other measures specified in license conditions are: restrictions on gear type, gear size and gear number; restrictions on the waterbodies in which fishing is permitted; restrictions on fishing locations within waterbodies; and restrictions on the number of persons permitted to fish under a license.

#### ***Aquaculture and Experimental Elver Fishery***

There is one licence holder in the Newfoundland and Labrador region for aquaculture and experimental elver fishery with an annual quota of 150kg. Elvers are reared to a larger size in an aquaculture facility before being sold. The maximum retention size for elvers is 10cm. Screening devices on gear are required to prevent bycatch of other species and salmonoid by-catch exclusion devices are required on all fyke nets. Logbooks are mandatory.

#### ***Recreational Fisheries***

There is currently an authorized recreational fishery for American Eel in New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador. There is no recreational fishery for American Eel in Ontario and Quebec. Recreational licences are required in some regions (i.e pots, traps, spear). Licenses are not required for angling or for spearing in tidal waters in the Atlantic Provinces. The recreational fishery is regulated by annual seasons, daily bag limits and gear restrictions which vary by area. Recreational licences in Maritimes Region are non-transferable.

#### ***Food, Social and Ceremonial Fisheries***

American Eel is an important species that Indigenous communities in Canada fish for Food, Social and Ceremonial (FSC) purposes. The FSC fishery is managed under the *Aboriginal Communal Fishing Licence Regulations* and Aboriginal Fisheries Strategy Agreements. There are currently 27 First Nations that have communal licences for FSC purposes. Fishing gear, quotas, seasons and fishing locations varies by aboriginal groups.

American eel is of great cultural, spiritual and economic significance to First Nations. American eel had a significant role in the 1999 Supreme Court of Canada Marshall Decision which confirmed that aboriginal people had a treaty right to catch and sell fish in order to earn a moderate livelihood. As a result of the Marshall Decision, communal commercial licences are issued to First Nations organizations for participation in the general commercial fishery.

**Bycatch**

In commercial and recreational fisheries, any bycatch of American eel caught incidentally while fishing for other species must be returned to the water. In First Nations FSC fisheries, any bycatch of American eel caught incidentally while fishing for other species may be retained if specified in the Aboriginal Fisheries Strategy Agreements; otherwise, it must be returned to the water.

**B.1.2**

If 'Yes', please indicate the end use(s) of each species of harvested eel – please copy and paste the text below if more sections are needed for multiple species:

Species name: American eel – Elver

Direct domestic consumption  For grow-out in domestic farms  National re-stocking   
Export for grow-out in farms  Export for direct consumption  Export for re-stocking  Other uses (please describe)

Please indicate the source(s) of information your answer is based on:

Integrated Fisheries Management Plan Attached at TAB 2



TAB2\_2018 Elver  
IFMP (FINAL1)

Species name: American Eel – yellow and silver eel

Direct domestic consumption  For grow-out in domestic farms  National re-stocking   
Export for grow-out in farms  Export for direct consumption  Export for re-stocking  Other uses (please describe)

Please indicate the source(s) of information your answer is based on:



**Canadian landings data for elvers and eels (Quantity in Kg; Value in CAD).**

Species	2012		2013		2014		2015		2016	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Eels	375,368	2,800,161	352,175	1,998,192	311,247	1,570,394	240,588	1,169,550	252,467	1,625,205
Elvers	4,191	22,956,191	5,412	26,264,813	4,284	9,570,912	3,576	16,754,287	5,202	15,188,279
<b>Grand Total</b>	379,559	25,756,351	357,587	28,263,005	315,531	11,141,306	244,164	17,923,837	257,669	16,813,484

Source: Department of Fisheries and Oceans, Economic Analysis and Statistics, ICERS 06/03/2018

**B.2.1**

Are *Anguilla* species (including *Anguilla anguilla*) consumed in your country?

Yes

No

If 'Yes', please provide details of what species and life stages are consumed

- Yellow and Silver American Eel are consumed in Canada.
- Elvers are caught for the purposes of grow-out and exported.

If No, please go to B.3.1.

**B.2.2**

If 'Yes', for how long have *Anguilla* eels been consumed in your country?

0-5 years  5-10 years  10-20 years  21-50 years  >50 years  Don't know

Eels are of significant historical and cultural importance to Indigenous communities in Canada. There are several recent resources that describe the significance of eels to the Mi'kmaq, Maliseet, and Peskotomuhkatiq peoples of Atlantic Canada. The COSEWIC (2012) Assessment and Status Report provides a short list of references regarding the historical and contemporary significance of American Eels to Aboriginal peoples. Aboriginal Traditional Knowledge (ATK) is integrated into many sections of the report, including information about eel behavior and morphology as well as stock status. Mi'kma'ki All Points Services (MAPS) released a report in 2011 summarizing results

of interviews with elders and eel fishers, and including a more comprehensive bibliography of resources related to traditional Mi'kmaq knowledge about and uses of eels (MAPS 2011). The Unama'ki Institute of Natural Resources (UINR) also released a series of ten short videos on eels and their importance to the Mi'kmaq people in 2013 (www.uinr.ca), and a report entitled *Mi'kmaq Ecological Knowledge: Bras d'Or Lakes Eels* in 2012 (Denny et al. 2012).

**B.2.3** If 'Yes', what is/are the source(s) of the *Anguilla* eels for consumption?

Domestic harvest  Domestic farms  Imported (wild-caught)  Imported (farmed)  Other (please describe)

Where possible, please provide further details of these sources (e.g. main species consumed and source countries).

**Canadian landings data for eels and elvers (Quantity in Kg; Value in CAD):**

Species	2012		2013		2014		2015		2016	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Eels	375,368	2,800,161	352,175	1,998,192	311,247	1,570,394	240,588	1,169,550	252,467	1,625,205
Elvers	4,191	22,956,191	5,412	26,264,813	4,284	9,570,912	3,576	16,754,287	5,202	15,188,279
<b>Grand Total</b>	<b>379,559</b>	<b>25,756,351</b>	<b>357,587</b>	<b>28,263,005</b>	<b>315,531</b>	<b>11,141,306</b>	<b>244,164</b>	<b>17,923,837</b>	<b>257,669</b>	<b>16,813,484</b>

Source: Department of Fisheries and Oceans, Economic Analysis and Statistics, ICERS 06/03/2018

**B.2.4** If 'Yes', please provide information on the amount of *Anguilla* species consumed annually (live weight, by species if possible).

No consumption data available

**B.2.5** If 'Yes', please provide information on whether the consumption of particular species has changed since the listing of *Anguilla anguilla* in Appendix II of CITES came into force in March 2009, or whether there have been barriers to monitoring such changes e.g. products sold under a common name.

No consumption data available. However, there has been a decrease in the harvest of adult American eel in Canada since 2009.

<p><b>B.3.1</b></p>	<p>Are anguillid eels (including <i>Anguilla anguilla</i>) farmed in your country?</p> <p style="text-align: center;">Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If 'Yes', please provide details of what species and life stages are farmed, and any reports, references and/or historical data that indicates the quantity and scale of production , focusing on the last 5 years (2011-2016, and if possible 2017).</p> <p>The Newfoundland and Labrador aquaculture operation has a maximum culture of 150 kg (annually) based on their annual quota. This operation includes both early life stage (elvers) and those grown out to adult size. The species is American eel (<i>Anguilla rostrata</i>).</p> <p>If No, please go to B.4.</p>
<p><b>B.3.2</b></p>	<p>If 'Yes', please provide details of where seed stock for each species farmed is obtained e.g. domestically or imported.</p> <p style="text-align: center;">Domestic harvest <input checked="" type="checkbox"/> Imported (wild-caught) <input type="checkbox"/> Imported (farmed) <input type="checkbox"/> Other (please describe) <input type="checkbox"/></p> <p>Where possible, please provide further details of these sources (e.g. source countries and life stages involved).</p>
<p><b>B.3.3</b></p>	<p>If 'Yes', please provide information on whether the grow-out of particular species into farms has changed since the listing of <i>Anguilla anguilla</i> in Appendix II of CITES came into force (March 2009).</p> <p>No change.</p>
<p><b>B.3.4</b></p>	<p>If 'Yes', please provide details of the end use of <i>Anguilla</i> spp. that are farmed - please copy and paste the text below if extra sections are needed for multiple species:</p> <p>Species name: American eel (<i>Anguilla rostrata</i>)</p> <p style="text-align: center;">Direct domestic consumption <input type="checkbox"/> For grow-out in domestic farms <input checked="" type="checkbox"/> National re-stocking <input type="checkbox"/></p> <p style="text-align: center;">Export for direct consumption <input checked="" type="checkbox"/> Export for grow-out in farms <input checked="" type="checkbox"/> Export for re-stocking <input type="checkbox"/> Other uses (please describe) <input type="checkbox"/></p>

	<p>If farmed eels are exported, please provide information on export destinations.</p> <p>The primary export market is Japan.</p>
<b>B.4</b>	<p>Is your country involved in any other aspects of eel trade/commercial use, such as processing eel or providing holding facilities for imported juvenile life stages for farming?</p> <p style="text-align: center;">Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If 'Yes', please provide link(s), reference(s) or additional information, for each species.</p> <p>There is a company in Canada that imports eels (elvers, yellow, silver) from various destinations. For elvers they have a holding facility in the US and in New-Brunswick, depending on the market demand eels are exported or imported from and to the US.</p>
<b>B.5</b>	<p>Is your country a range state for any other 'eel or eel-like' species (such as swamp eels, <i>Monopterus</i> spp. or snake eels <i>Synbranchus</i> spp.) that could be confused for <i>Anguilla</i> species and/or may be reported as <i>Anguilla</i> in customs data?</p> <p style="text-align: center;">Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>If 'Yes', please provide additional information on the species involved.</p>
<b>B.6</b>	<p>Does your country record trade in <i>Anguilla</i> species using the 6-digit HS customs code, or to a higher level of detail (national customs codes with more than 6 digits)?</p> <p style="text-align: center;">6-digit HS code <input type="checkbox"/> &gt; 6 digit national customs code <input type="checkbox"/></p> <p>If recording using the 6 digit HS code, please confirm your country has submitted its international trade statistics data (6 digit HS code data) to the United Nations Statistics Division (UNSD) over the last 5 years (2011-2016).</p> <p style="text-align: center;">Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>



**C. LEGISLATION / REGULATORY FRAMEWORK**

<b>C.1.1</b>	<p>Other than CITES implementing legislation for <i>Anguilla anguilla</i>, is domestic use (harvesting, farming and/or internal trade/consumption) of <i>Anguilla</i> species regulated in your country through national legislation?</p> <p style="text-align: center;">Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>If 'Yes', please go to question C.1.2 and provide details of the applicable legislation.</p> <p>If 'No', are there any initiatives to monitor and/or control domestic use of <i>Anguilla</i> spp., such as co-operative/community monitoring programmes or other private sector initiatives, please provide details:</p>
<b>C.1.2</b>	<p>Please provide information on how domestic use of <i>Anguilla</i> species is regulated and what forms of use are permitted or forbidden in your country.</p> <p>Fisheries and Oceans Canada Conservation and Protection (C&amp;P) activities are designed to ensure compliance with the legislation, policies and fishing plans relating to the conservation and sustainable use of the resource. The C&amp;P National Compliance Framework describes a three pillar approach to the sustainability of this and other fisheries. The pillars are Education/Shared Stewardship: Monitoring, Control and Surveillance; and Major Case Management.</p> <p>For the purposes of this Compliance Plan, the eel and elver fisheries in the Region will be considered together. Compliance in the eel/elver fishery is achieved through the application of the <i>Fisheries Act</i>, the <i>Fishery (General) Regulations</i>, the <i>Atlantic Fishery Regulations</i>, the <i>Maritime Provinces Fishery Regulations</i> and the <i>Aboriginal Communal Fishing Licences Regulations</i>.</p> <p>The following offers a general description of compliance activities carried out by C&amp;P in the eel/elver Fishery:</p> <ul style="list-style-type: none"><li>• Fishery Officers conduct inspections to check location, gear, catch, licences, logbooks and compliance with release requirements.</li><li>• C&amp;P staff carries out a number of investigative techniques into reports of fraud and collusion. This may involve interaction with other</li></ul>

federal, provincial and municipal government agencies.

- C&P designates dockside observers (third parties). Designations are subject to individuals meeting background checks and eligibility criteria and require the successful completion of exams.
- C&P monitors the performance of dockside observers through audits and may initiate action to revoke the designations of observers found to be deficient in the performance of those duties.
- Routine vessel, vehicle and foot patrols are conducted in the areas covered by this plan.

Recreational fisheries, Aboriginal Food, Social and Ceremonial fishery, Commercial fishery for eels and elvers and Aquaculture elver are permitted in Canada.

Additional information can be found in TAB 1 (summary of the fisheries) and TAB 2 (Integrated Fisheries Management Plan). These documents are included in sections B1.1 and B1.2 respectively.

Species	Title, date of enactment, and relevant provisions of national legislation
	See TAB2 for a list of relevant legislation within Canada that regulates use of American eel ( <i>Anguilla rostrata</i> )

**C.1.3**

Other than CITES implementing legislation for *Anguilla anguilla*, has your country adopted national legislation to regulate international trade (export/import) in *Anguilla* species?

Yes

No

If 'Yes', please go to question C.1.4 and provide details of the applicable legislation.

**C.1.4**

Please provide information on how international trade of *Anguilla* species is regulated and what is permitted or forbidden in your country.

Species	Title, date of enactment, and relevant provisions of national legislation
All <i>Anguilla</i> species	Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act, 1992, Provision 6 (1), (2)
All <i>Anguilla</i> species	Canada Border Services Agency Act, 2005 through the Fish Inspection Act, 1985

**C.2**

Has your country experienced any challenges with regard to implementing any of the legislation and/or initiatives described in section C1?

Yes  No

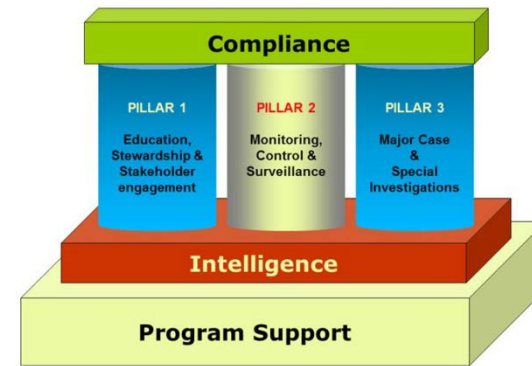
For implementing domestic fisheries in Canada under the *Fisheries Act*, a review of violations for recent periods suggests that non-compliance in the eel/elver fishery is largely related to gear. Examples include improperly set gear, blocking too much of the river hindering the safe passage of elvers, unattended gear, and escape panel too small (for eel). Illegal harvest is a potential threat to the orderly management and control of the elver fishery as elvers are susceptible to poaching. The recent high price for elvers affords the potential financial incentive to engage in illegal harvesting. To be effective in deterring non-compliance, the efforts taken by enforcement officials must demonstrate that the likelihood of violations being detected is high, and that serious violations will result in penalties being imposed. The response to non-compliance includes warnings, tickets, or prosecution.



## D. ENFORCEMENT

<b>D.1</b>	<p>What government agency is responsible for the enforcement of American eel <i>harvest</i> laws in your country? Please provide the name of contact person(s) from this department/agency.</p> <p>Fisheries &amp; Oceans Canada, Judy Dwyer, Director of Enforcement, Conservation &amp; Protection, (613) 993-3371.</p>
<b>D.1.1</b>	<p>What measures/tools do you use to promote and ensure compliance with American eel harvest laws (i.e. recording and reviewing harvest data, fieldwork and surveillance, fishing gear inspections, fishermen and dealer inspections/interviews, etc.)</p> <p>The Fisheries Management branch through regulations issues license conditions which require use of tools such as log books and third party monitoring verification services; Fishery Officers conduct inspections, investigations, etc.</p> <p>The Conservation &amp; Protection sector is responsible to provide conservation, protection and enforcement of fishing activities using the DFO National Compliance Framework. This is a Three Pillar Framework supported by an Intelligence-Led enforcement platform resting on a solid foundation of Program and Operational Readiness. The purpose of this framework is to provide a solid foundation for the activities the department undertakes to achieve and maintain compliance.</p> <p>The National Conservation &amp; Protection Compliance Framework has eight underlying principles:</p> <ol style="list-style-type: none"><li>1. Proactive (promote voluntary compliance);</li><li>2. Collaborative (build support through partnerships);</li><li>3. Problem Solving (special attention to specific problems);</li><li>4. Risk Based (effort and response proportional to risk)</li><li>5. Innovative (optimize use of technology and other tools);</li><li>6. Intelligence-led (increased role of intelligence and analysis in supporting enforcement operations);</li><li>7. Cost efficient/effective (better use of resources);</li><li>8. Balanced (appropriate mix of activities undertaken to achieve compliance);</li></ol> <p>These approaches and principles guide the application of compliance tools organized into the three pillars of compliance management:</p> <ol style="list-style-type: none"><li>1. Education and shared stewardship;<ol style="list-style-type: none"><li>a. Building support for the future through:<ol style="list-style-type: none"><li>i. Informal Education;</li><li>ii. Formal Education;</li><li>iii. Co-management/Partnerships.</li></ol></li></ol></li><li>2. Monitoring, control and surveillance;</li></ol>

- a. Traditional Enforcement Activities like:
  - i. Departmental MCS Programs;
  - ii. New Technologies;
  - iii. Third Party Monitoring Activities;
  - iv. Inter-Agency Partnerships;
  - v. Response to Non-Compliance
- 3. Major case/special investigations.
  - a. Enhanced Investigative Capacity through:
    - i. Formal Intelligence Gathering & Analysis;
    - ii. Retroactive Offence Detection and Investigation;
    - iii. Specialized Skills



**D.2**

Have there been any reported incidents of the illegal harvest of American eels in your country?

Yes

No

If 'Yes', please go to question D.2.1 and provide details.

**D.2.1**

If you answered yes, where possible, please provide information on the reported incidents of illegal harvest:

Timeframe: 2008 to Present: <i>(Note: Data used is from 2013 to Present. Nature of violations are varied, not specifically "illegal harvest".)</i>	
Number of Incidents	131 Violations, 205 Occurrences in last five years.  A <b>violation</b> is a notation recorded for each legal action undertaken against each person (or organization) related to a specific occurrence. A violation action can be Charges Laid, Seizure(s) - Persons Unknown, Ticket Issued, Warning Issued, etc.  An <b>occurrence</b> is a notation of each separate call for service, complaint or self-generated work, regardless of the number of persons, offences or charges.
Number of specimens/Size of Seizures (kg)	A sample of a recent seizure: 38 kg
Life stage/product of the harvested <i>Anguilla</i> species (elver, adult eel, processed meat, leather, etc)	Most often elver/glass eel and less frequently adult eel.

	Trade Routes Used (Country of origin/transit/destination)	Origin East Coast Canada. Destination(s) Korea, Hong Kong, China.
	Nature of Violations (ie: harvest quotas, gear restrictions, closed areas/seasons, licensing/permits, others)	<p>A range of items with relation to:</p> <ul style="list-style-type: none"> <li>• Area/Time</li> <li>• Illegal Gear/Gear used illegally</li> <li>• Gear Conflict</li> <li>• Habitat</li> <li>• Illegal buy, sell, possess</li> <li>• Registration/License</li> <li>• Reporting</li> <li>• Species/Size Limit</li> </ul>
<b>D.3</b>	<p>What government agency enforces border and domestic <i>trade</i> laws for American eels in your country? Please provide the name of contact person(s) from this department/agency.</p> <p>The Canada Border Services Agency (CBSA) provides clearance, control and examination services, on behalf of other government departments and agencies, for travellers, importers and exporters, at close to 1,200 points of entry (POE), including land border offices, international mail processing centres, airports, sufferance warehouses, and a number of other service locations. They may be contacted at 1-800-461-9999 within Canada or externally at 1-204-983-3500 or 1-506-636-5064.</p> <p>Depending on what stage of preparedness American Eel is at time of import or domestic trade, other regulatory bodies may become engaged. If the eel is prepared for consumption (broiled, smoked, frozen, etc.) the Canada Food Inspection Agency will become engaged to ensure the safety and nutritional quality of all eel sold in Canada meets specified standards set by Health Canada. They may be contacted at 1-800-442-2342 or 613-773-2342</p> <p>In certain instances Environment and Climate Change Canada's Wildlife Enforcement Directorate, a part of the Enforcement Branch may become engaged. At point of entry or exit from the country or through interprovincial transport, American Eel can become subject to the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRIITA), Canada's domestic legislation implemented through CITES. In specific, American Eel whose capture, possession, and export are prohibited or regulated by laws in their country of origin may be subject to WAPPRIITA. Also, WAPPRIITA may also be used for domestic movement of American eel provincial or territorial laws governing capture, possession, and transportation are contravened.</p>	
<b>D.3.1</b>	<p>What measures/tools do you use to ensure compliance with American eel trade laws? (i.e. databases to track trade, border inspections and searches, document/permit/license reviews, etc.)</p> <p>Environment and Climate Change Canada's Wildlife Enforcement Directorate routinely carries out verification of import and export data on American Eel for quantity, weight, origin and destination, packaging requirements as per <b>International Air Transport Association guidelines (IATA)</b>. Occasional inspections at port of entry or exist may be carried out to ensure compliance with the Act (WAPPRIITA). Environment and Climate Change Canada's Head of Wildlife Enforcement is Mr. Sheldon Jordan, Director General. His contact number is 819-938-5381.</p>	



<p><b>D. 4.3</b></p>	<p>Please provide details about any enforcement challenges you've experienced with regard to D.4.2.</p> <p>With regard to harvest:</p> <ul style="list-style-type: none"> <li>• Inefficiencies regarding access management and control such as license conditions regarding: <ul style="list-style-type: none"> <li>○ records of weight</li> <li>○ notifications</li> <li>○ monitoring</li> <li>○ reporting systems</li> </ul> </li> <li>• Remote locations, ease of catch, high value and market demand.</li> <li>• Competing enforcement priorities, number of officers available.</li> <li>• Record keeping systems and ability to search entries and/or produce quality reports for analysis.</li> </ul>
<p><b>D. 4.4</b></p>	<p>Please describe if and how you have overcome these enforcement challenges described in D.4.2.</p> <p>With regard to harvest:</p> <ul style="list-style-type: none"> <li>• Indigenous partners are being consulted for assistance and fisheries management has been asked to revisit some conditions of communal food, social, &amp; ceremonial licenses.</li> <li>• Eighteen recommendations regarding commercial management license conditions were brought forward by conservation and protection in 2014 and most mitigated to different degrees by senior fisheries management advisors working with species advisory groups.</li> <li>• Partnerships, intelligence led planning.</li> <li>• Conservation &amp; Protection research into updates to data entry systems and additional systems staff.</li> </ul>
<p><b>D. 5</b></p>	<p>How does your country monitor domestic and international trade in American eel? Does your country have any mechanisms in place that would support this?</p> <p>Domestic trade of "live" American Eel is monitored for compliance through the review of interprovincial transport licenses, permit acquisitions and violator databases. International trade is monitored in conjunction with our Canada Border Services Officers for cause and generally on import into or export out of the country.</p> <p>Domestic and international movement / trade of live American Eel is monitored for compliance through physical inspections of cargo shipments or through paper verification at point of license / permit application. In specific instances and for cause, a notification system may be used to provide advanced warning where questionable shipments are identified. This is accomplished in conjunction with other regulatory bodies having a complimentary mandate.</p>