

**AP2/14/2015**

**FEDERATION OF IRISH  
SALMON&SEATROUT  
ANGLERS**

**APPEAL**



**NOTICE OF APPEAL UNDER SECTION 40(1) OF  
FISHERIES (AMENDMENT) ACT 1997 (NO. 23)**

Name and address of appellant: FISSTA - Federation of  
IRISH SALMON + SEATROUT ANGLERS

Telephone: 074 9730300  
Mobile Tel:

Fax:  
E-mail address: ~~dg@fisstas.ie~~

Subject matter of the appeal: APPEAL AGAINST DECISION TO GRANT  
SALMON FARM/AQUACULTURE + FRESHWATER LICENSE AT SHOT HEAD, BANTRY  
Co. CORK.

Site Reference Number:- TS/555  
(as allocated by the Department of Agriculture, Food and the Marine)

Appellant's particular interest  
in the outcome of the appeal:

PROTECTION OF WILD SALMON  
+ THEIR HABITAT - STOP POLLUTION  
OF TOXIC  
WASTE.

Outline the grounds of appeal (and, if necessary,  
on additional page(s) give full grounds of the  
appeal and the reasons, considerations and  
arguments on which they are based):

THE DESTRUCTION OF  
THE WILD ATLANTIC SALMON HABITAT AT  
SHOT HEAD + BANTRY BAY

Fee enclosed: € 152.37  
(payable to the Aquaculture Licences Appeals Board in accordance with the Aquaculture  
Licensing Appeals (Fees) Regulations, 1998 (S.I. No. 449 of 1998))(See Note 2)

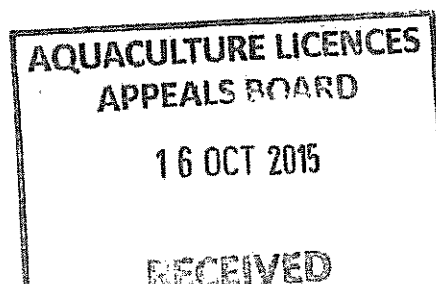
Signed by appellant: J. C. GARR RYAN Date: 15/OCT/2015

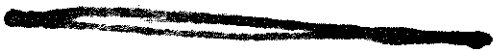
**Note 1:** This notice should be completed under each heading and duly signed by the appellant and be accompanied by such documents, particulars or information relating to the appeal as the appellant considers necessary or appropriate and specifies in the Notice.

**Note 2:** The fees payable are as follows:

Appeal by licence applicant	€380.92
Appeal by any other individual or organisation	€152.37
Request for an Oral Hearing (fee payable in addition to appeal fee)	€76.18

In the event that the Board decides not to hold an Oral Hearing the fee will not be refunded.





# Federation of Irish Salmon & Sea Trout Anglers

Conaidhm na Slat Iascaíirí Bradáin agus Breac Geal

VISIT US AT [www.fissta.com](http://www.fissta.com)



**F.I.S.S.T.A.**

**MR. NOEL CARR HON SECRETARY,**

**FISSTA – FEDERATION OF IRISH SALMON & SEATROUT ANGLERS**

**Teelin Rd, Carrick Co Donegal. Tel/Fax: 074 9730300 Email: [dgl1@indigo.ie](mailto:dgl1@indigo.ie)**

**FAO: Ms. Imelda Reynolds, Chair of the ALAB, Kilminchy Court, Portlaoise.**

**15<sup>th</sup> October 2015.**

Dear Ms. Reynolds,

Please find enclosed our appeal to your Board in compliance with Section 40& 41 of the Fisheries Amendment Act.

We are a national federation of over ninety salmon and seatrout clubs on the island of Ireland and our aims and objectives include the conservation of our wild salmon and seatrout as every season we manage the habitat to ensure salmon returns are improved. We are an accredited NGO at NASCO – North Atlantic Salmon Conservation Organisation ([www.nasco.int](http://www.nasco.int)) and put forward both local and international reasons why we object to the new Shot Head license. We regret that our work is severely impeded by the imposition of open net cages with farmed salmon in the migratory channels such as the one now approved for Shot Head and for which is the subject of this appeal now to your board.

We have objected to many of the fin fish licenses granted since the early nineties and always the scientific advice of the Marine Institute is cited as the reason and defense in supporting the Ministerial approval. Never or rarely has the other state scientific advice from the CFB or now the IFI or Inland Fisheries Ireland or international authorities been accepted despite many the submissions from us and others drawing your attention to them. The important issue is that every party gets a fair hearing and that justice must be seen to be done by arriving at decisions that are evidence based. But such scientific advice from the Marine Institute is not independent as they are not a free agent without a vested interest in the decision and the general public do not view their advice as such.

The minister still allows operations of the Marine Institute to be put under the direct control of the Fisheries Division which allows the fishery industry to have a direct input and undue influence in the evidence put forward and the ALAB are not without their own industry influential. They are occasionally appointed above our wild salmon members by the Minister to the ALAB to the delight of the Irish Farmers Association who constantly deliver for IFA Aquaculture. How else can they continue to punch so far above their weight? How can a few companies, (mostly foreign with abysmal track records abroad) with 80 full time and 40 part time jobs in their industry (source: NSPSC page 38 Appendix 5) hold an angling tourism industry of 12,000 jobs and €800m in ransom for their own selfish needs which are siphoned offshore to the delight of the Oslo stock exchange.



This license was granted in the same month as the Minister would have read the report funded by the Norwegian Seafood Research Fund that confirms scientifically that salmon farms result in sea lice increases and decimate wild migrating smolts in the channels to their feeding grounds. (See cutting Connacht Tribune Appendix 1)

If any further cages are imposed on Bantry Bay the toxicity of pesticides will pollute the waters to the detriment of all users. (See cutting Intra fish Media Appendix 2)

We submit this appeal without the knowledge and report detailing the impact of the 230,000 farmed salmon escape in Bantry Bay. The minister has been requested to furnish us with the report but as you can see from the Parliamentary Question yesterday, no such report is likely to be given to us to assist our case with ALAB. We need ALAB to have sight of this report before they decide on this appeal. (See PQ in Appendix 3 and Cork Examiner cutting in Appendix 4)

It is essential that every member of the ALAB read the Minister's new strategy documents issued in June 2015 which confirms the lack of vision and ignores the new technologies that could deliver his targets in 2017 instead of 2023, if only his staff researched and briefed him in the new RAS developments which FISSTA have lobbied him on over the past two years. See extract page 38 in Appendix 5)

There are 7 more global reasons why we appeal for the rejection of the Shot Head license because Ireland is included in a problem group of countries that includes Norway and UK and why Greenland refused to sign up to their usual contract of restraint from netting and conserving last season:

1. All Nasco natal water countries rightly urge the feeding countries of Greenland, Iceland and the Faeroes Islands to restrain from mixed stock exploitation. Yet Scotland and Norway, Ireland and UK fail to protect (by granting licenses for salmon farming) the valuable brood stock on their migratory channels to the feeding grounds and also on their way home to spawn.
2. The 2010 licensing of commercial netting in the Castlemaine fishery, just around the corner from Bantry Bay was clearly a decision to test our reaction for a return to mixed stock fishing. The success of our campaign against Castlemaine to date, with the help of NASF and our international colleagues, is the main reason why our government has refrained from opening any further bays and returning to those dark days when our salmon were on the brink of extinction.
3. While many embrace the single stock river management system as the way forward, the sad lesson from Ireland is that it has failed to deliver increased stocks after almost two life cycles of the salmon having elapsed. The latest state fishery regulations for 2014 confirm that of our 150 designated wild salmon rivers, 86 are still below conservation levels and without surplus. This means they are closed down yet again for the taking of any fish in 2015. This management policy is a very slippery slope that was politically motivated. It will never result in the recovery of our fisheries as long as the scientific advice continues to regard commercial netting equivalent to angling exploitation, because netted fish can never be released. This flaw along with salmon farming and sealice in the single stock management system will impede any escapement until all commercial draft netting on rivers are closed down.





4. In November 2012 our government announced their intention to locate ten mega salmon farms off the west Irish coast, starting with the iconic Galway Bay. The media reported that it would increase national production from our present 10,000 tons to a possible 300,000 tons but failed to state that the plan will pollute the habitat and eliminate any hope of our smolts surviving their migration through the sealed gauntlet of cages to their feeding grounds in the far North Atlantic. To date the decision to grant the first has yet to be made but the approval of the Shot Head license confirms the very low regard the Minister has for our wild salmon resource which does not augur well for our wild salmonid future.
5. Irish anglers are paying a double rod license fees since 2007 to finance a protection policy that simply does not work. These fish are invaluable, yet nothing is being done to develop those 86 underperforming rivers despite a recent independent socio economic study estimating the angling industry at over €750m per annum to our economy. The Greenlanders know this and wonder what point is there in protecting a resource for it to be wiped out by sea lice or mismanagement on the other side of the Atlantic anyway.
6. It is vital that our appeal to this new license succeeds for the survival of our wild salmon which would send out the message to the feeding countries of the North Atlantic, and Greenland in particular that Ireland does have a duty of care to this very valuable resource which we share with nineteen other wild salmon countries along both sides of the north Atlantic.

So, while we assist our colleagues well in their buyout efforts to salvage our few remaining fish in their ongoing Greenland negotiations, it is indeed a struggle 'to live for to fight another day' in what is a mad gamble by those responsible for our natal rivers. It is fair and just for us and our international colleagues to campaign against any state body that fails to recognise and protect our hard won wild Atlantic salmon asset from extinction.

So I would appeal to you and your colleagues on the ALA Board to reject the granting of this license so that our Minister and government will rethink and hopefully change course to finally lead by example. This has been missing for many years and once again we are hopeful that your decision will spark the changes to new closed contained technology (RAS) that we all so desperately need for the benefit of future generations.

Yours sincerely,

*Noel Carr 15/10/15*

Noel Carr, Secretary, FISSTA, - Federation of Irish Salmon and Seatrout Anglers, Teelin Rd, Carrick, Co. Donegal, Ireland. Email: [dall@indigo.ie](mailto:dall@indigo.ie)

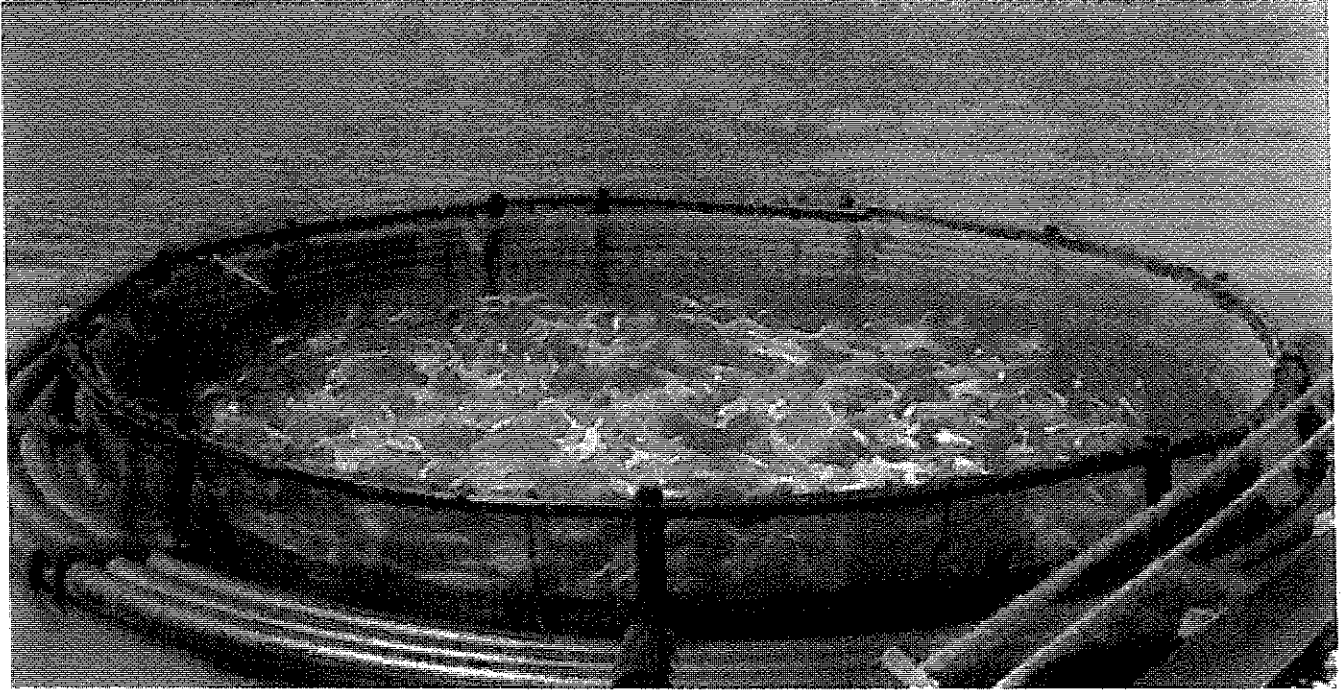


# **APPENDIX 1**



## Salmon farms result in sea lice increase

by Dara Bradley - Sep 20, 2015



Salmon farms have a negative impact on wild sea trout, a new definitive scientific paper has concluded.

The study, which reviews over 300 scientific publications on the subject, confirms evidence collated since the early 1990s in Ireland regarding the impact of sea lice on wild sea trout stocks, particularly in relation to the collapse of Connemara's sea trout stocks.

Inland Fisheries Ireland and Galway Bay Against Salmon Cages (GBASC) have both welcomed the report entitled 'Effects of salmon lice *Lepeophtheirus salmonis* on wild sea trout *Salmo trutta*—a literature review'.

They argue the conclusions of the report cast doubt over plans for a massive fish farm in Galway Bay.

The project was funded by the Norwegian Seafood Research Fund which provides investment in Norwegian seafood industry-based research and development. A team of top international scientists from Norway, Scotland and Ireland reviewed all available published studies on the effects of sea lice and have concluded that sea lice have negatively impacted wild sea trout stocks in salmon farming areas in Ireland, Scotland and Norway.



The study also examined the potential effect of sea lice on salmon and concluded that sea lice have a potential significant and detrimental effect on marine survival of Atlantic salmon with potentially between 12% and 29% fewer salmon spawning in salmon farming areas.

These conclusions concur with previously published Inland Fisheries Ireland (IFI) research on the potential impact of sea lice from marine salmon farms on salmon survival. The studies reviewed indicate that salmon farming increases the abundance of lice in marine habitats and that sea lice in intensively farmed areas have negatively impacted wild sea trout populations. The effects of sea lice on sea trout are increased marine mortality and reduced marine growth.

IFI, who welcomed the study, said it has consistently called for marine salmon farms to maintain sea lice levels close to zero prior to and during the wild sea trout and salmon smolt migration period in spring. It also raised concerns regarding the location of salmon farms in the estuaries of salmon and sea trout rivers.

The Board of Inland Fisheries Ireland in a statement said: "This new scientific review paper confirms the need for very tight regulation of sea lice levels on salmon farms and raises legitimate concerns with regard to the potential impact of new large scale salmon farms proposed along Ireland's west coast on salmon and sea trout stocks.

"Regulators will now need to consider the results of this comprehensive review when making decisions on the sustainability and approval of future marine salmon aquaculture licences and the regulation of sea lice at existing sites so as to ensure no negative impact on salmon and sea trout stocks."

GBASC also welcomed the report and said it 'blows out of the water' previous research which said that sea lice cause just 1% of mortality in wild salmon.

"In light of the results of this new study we also call on Minister Simon Coveney not to grant any licence large or small for a salmon farm in Galway Bay. This new study proves that if a licence is granted for Galway Bay, it will have disastrous consequences for the wild salmon and sea trout in the Corrib and other rivers surrounding Galway Bay," the lobby group said.





## **APPENDIX 2**



From: Noel Carr <noel@fishbase.org>  
Subject: Escape  
Date: 15 October 2015 10:14  
To: Noel Carr <noel@fishbase.org>



Photo: Anders Furuset

## Marine Harvest loses 70 tons of salmon during sealice treatment

Norwegian Food Safety Authority talks of 'very serious incident' local media report suggests

IntraFish Media

Norwegian salmon farming giant Marine Harvest lost 70 metric tons of salmon while using hydrogen peroxide to treat the fish against sea lice in one of its cages, reported *Bergens Tidende* Wednesday.

Around 17,000 salmon, of about four kilograms in weight each, died during the "very serious incident," as the Norwegian Food Safety Authority (FSA) described it.

Around 17,000 salmon, of about four kilograms in weight each, died during the "very serious incident," as the Norwegian Food Safety Authority (FSA) described it.

The mortality occurred in the locality of Gulesto in Bremanger.

A total of 190,000 salmon were in the cages, and nearly 9 percent died during the treatment.

Hydrogen peroxide is a disinfectant and one of the most common substances used in the fight against sealice on salmon.

Fish Market Platform: A new generation manager at IFM is now set

### Associated Articles

- Disease hits second Russian salmon farmer
- Paving a path through a forest of risk
- Russia blames Norway for recent salmon deaths
- SalMar admits to using formaldehyde to combat sealice
- SalmoBreed implements new tech on sea lice resistance
- Norway's salmon giants forced to harvest early over rampant sea lice



## **APPENDIX 3**



Parliamentary Question No. 114

To ask the Minister for Agriculture, Food and the Marine if an investigation has been undertaken into the escape of farmed salmon in Bantry Bay in February 2014; if a report on the occurrence will be issued; and if he will make a statement on the matter.

- Ciarán Lynch.

For WRITTEN answer on Tuesday, 13th October, 2015.

Ref No: 35333/15 Proof: 138

**REPLY**

**The Minister for Agriculture, Food and the Marine : (Simon Coveney)**

My Department's examination of the damage to structures at an aquaculture site in Bantry, County Cork arising from severe weather conditions last year is ongoing. This examination is detailed and involves all engineering, scientific, environmental and technical matters associated with the incident. It also involves active engagement and consultation with relevant Government Departments and State Agencies.

In view of the ongoing nature of the examination it would not be appropriate for me to comment further at this time.

Paul Farrelly  
021 4366200 086 0518902

Parliamentary Assistant to  
Ciarán Lynch T.D.

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**Beartas ríomhphoist an Oireachtais agus séanadh.**

<http://www.oireachtas.ie/parliament/ga/eolas/beartasriomhphoistanoireachtaisagusseanadh/>





## **APPENDIX 4**



# IRISH EXAMINER

## State must release salmon farm report

118156

Tuesday, July 28, 2015

By  
Irish Examiner Reporter

Eoin

English

The Ombudsman has ordered the State to release a detailed report into a salmon farm accident which resulted in one of the largest ever losses of farmed salmon.

Information Commissioner Peter Tyndall's decision to overturn the Department of the Marine's refusal to release the report follows a sustained campaign by environmentalists in West Cork arising out of the incident in Bantry Bay in 2014.

Friends of the Irish Environment (FIE) last night hailed the success of their appeal as an important victory.

"It's a good result. But we are concerned about the length of time it has taken to get to this point," said FIE spokesman Tony Lowes. "The delayed release of information can often mean it is no longer useful. We have a two-and-a-half-year delay on another case."

The department now has 60 days to consider the ruling and mount any appeal.

However, Mr Lowes said he is hopeful the information — the accident report, two separate site inspection reports from 2008 and 2013 and vital insurance claim papers — will now finally be released.

Almost 230,000 salmon were lost when storms battered a salmon farm in Gerahies in Bantry Bay, Co Cork, in February 2014.

FIE subsequently sought the department's report into the incident, amid concerns about alleged failings in the regulatory regime governing such salmon farms.

However, the department refused to release the information on the grounds the "public interest would not be served by disclosure".

FIE appealed this decision to the Ombudsman, claiming it was a matter of extreme public importance, not just in this case, but also amid allegations that the department had failed to properly fulfill its regulatory functions in ensuring compliance with aquaculture licensing conditions aimed at preventing the escape of fish. FIE took their fight all the way to the High Court.



It emerged during the saga that the department was "of the view" that the release of any parts of the deliberative process advising Marine Minister Simon Coveney on what action to take "would be premature and would unduly constrain the minister in respect of any action which he might deem appropriate".

However, it emerged last month that the department was still not in a position to make a specific recommendation to the minister and that, at that point, no proposal for action was under consideration.

The Ombudsman, which blamed staffing delays for some of the delay assessing FIE's appeal, finally gave an undertaking to the court earlier this month to rule on the case within a week.

Now, in a technically complex and lengthy decision, Mr Tyndall has ruled that the department's arguments for refusing to release the information were not justified.

He said there is a strong public interest in maximising openness and accountability in relation to how the department and the Marine Institute carry out their functions under the relevant legislation governing the aquaculture industry.

He said it is difficult to follow the logic of the department's claims that the release of the information could be potentially harmful to the regulatory process, and he found that the public interest served by disclosure would outweigh any interest served by refusal.

A report on the loss of 80,000 salmon in Clew Bay in 2010 blamed the department's failure to enforce licensing conditions.

That report said if a more rigorous or frequent mooring inspections programme had been in place it is possible, even likely, there would have been earlier detection which would therefore have avoided the failures.

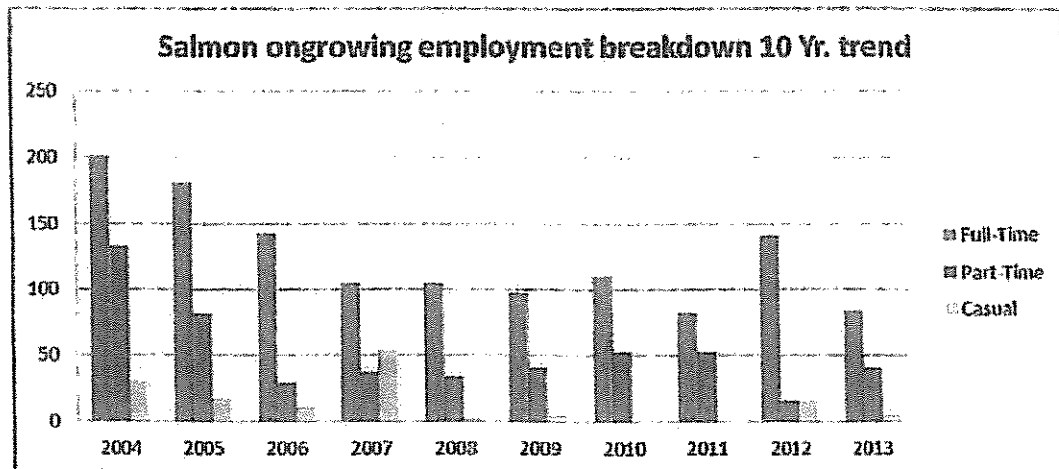
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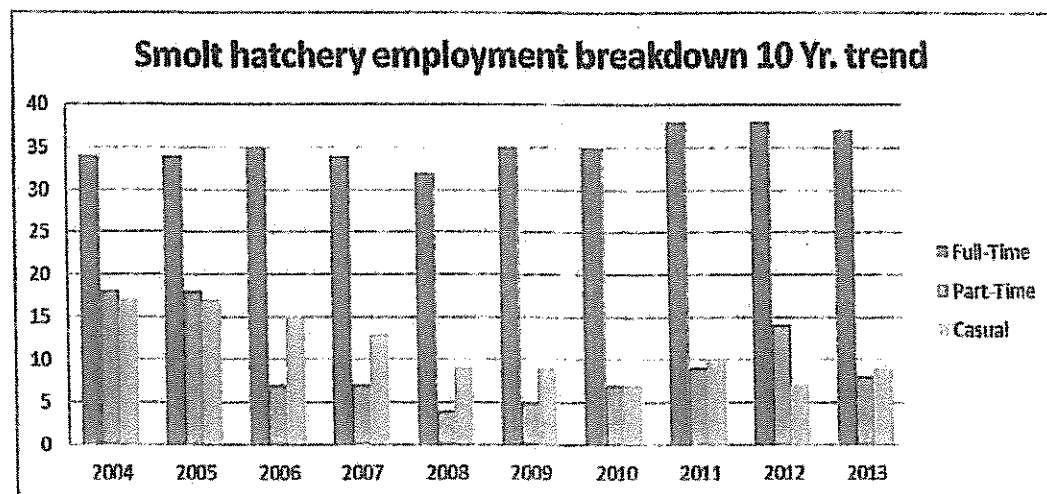
## **APPENDIX 5**







Source: BIM



Source: BIM

### Production Trends

Notwithstanding declines in salmon production output, the Irish salmon farming industry maintains extremely positive market trends by delivering a product that is viewed as distinct and desirable in the marketplace by virtue of its origin. Ireland's high-energy, exposed sites and low stocking densities result in high quality salmon that achieve a price premium in the market place.

Over the past decade, the Irish salmon industry has focused on organic status production, which has proven to be a beneficial strategy for Ireland's low-volume, niche output in terms of achieving a favourable price differential.

The production of organic aquaculture has been the success story of the organic movement in Ireland, with organic salmon production leading the way, and known as



# *Federation of Irish Salmon & Sea Trout Anglers*

Conaidhm na Slat Iascairi Bradáin agus Breac Geal

VISIT US AT [www.fissta.com](http://www.fissta.com)



**F.I.S.S.T.A.**

## **APPENDIX 1. FISSTA - WHO WE ARE**

**FISSTA** are an all Ireland angling representative body for salmon and sea trout angling and the voice of over 20,000 members in up to 90 affiliated salmon and sea trout (salmonid) clubs located on the main Irish angling waterways. FISSTA were established in 1986 as an effective lobby group to improve and assist the lot of the Irish angler. Local anglers who want to develop and conserve their fishery need the help to get started and FISSTA have assisted many anglers to organise themselves into formally registered clubs on their local waters and by providing the most competitively priced insurance scheme that protects the personal assets of club officers and our registered membership. We campaign for angler's rights and conservation of wild salmonid stocks. We seek fair access to angling waters for the local club angler at a reasonable cost and campaign for the right for a 7 year secure tenure for all Irish angling clubs leasing state waters.

As an umbrella body for anglers it is a strong voice for the conservation of salmon both nationally and internationally. Our motto is "Committed to Conservation" and continue to work to achieve the abundant return of the wild Atlantic salmon to our waters and our work has been acknowledged worldwide. In December 2007, the Icelandic President awarded the Knight's Cross for the many years of support for the wild Atlantic salmon.

FISSTA are one of the founder members and first contributor to the North Atlantic Salmon Fund (NASF) and we have campaigned for over twenty years against successive Irish Government policy of the unsustainable practice of driftnetting. We accepted that this should be done by compensating the commercial netmen and by supporting the NASF proposals put forward by Chairman Orri Vigfusson to extend his buyout scheme to our coastline. FISSTA united the campaign against driftnetting in 2004 by founding the Stop Salmon Driftnets Now campaign which acted as the binding force for all angling and fishery interests to lobby the Government. The turning point to the campaign came when we mobilised 5,000 supporters to travel to Kilarney in County Kerry to protest at the Fianna Fail Ardtheis on the 22nd October 2005. On November 1st 2006 the Government in a pre election mode adopted the White Report which ended the driftnetting at sea under a compensation scheme. However, the NASF model was not adopted and the present process is fragile for all concerned.

FISSTA continue to campaign for the wild Atlantic salmon to return to abundance and the issues now are the increase of drift netting, pollution from fish farms, and development of our salmonid habitat. We seek new members who support clean water, the sport of angling and saving the wild Atlantic salmon. FISSTA and Donegal Game Angling Federation are presently defending their rights on the Gweebarra River which is presently being deliberated by the Supreme court. FISSTA will use all legal means to oppose the Minister Coveney ten mega fish farm plan.

Non-Government Observer to NASCO - North Atlantic Salmon Conservation Organisation  
Founder Members: NASF - North Atlantic Salmon Fund; EAA - European Anglers Alliance; SOS - Save Our Sea Trout;  
Cara na Mara - Stop Salmon Driftnets Now Campaign; Salmonid Sanctuary Programme [www.fissta.com](http://www.fissta.com)

**"Committed to Conservation"**



**The Irish Sports Coalition** comprises of representative associations for sports shooting and angling interests. Its objectives are to defend and represent the interests of resident sports shooting and angling men and women.

This FISSTA led campaign against the ten mega fish farm plan is supported by all RISE and Coalition bodies established to disseminate information to the members of the constituent associations concerning the latest proposals of the Gardai and the Department of Justice and Equality to further restrict possession of firearms for sporting purposes without justification. A large campaign has been launched to fight these very unjust proposals and the website will be the focal point for all our supporters. It is a "one-stop-shop" for information, updates, commentary and direction to member associations, clubs, individuals, supporters and politicians and will assist everyone in helping to oppose these most unreasonable proposals.

We hope with your help, to inform those who will eventually be called upon to make the final decisions. Please follow the news and get as many people as possible to sign the petition. Add your comments on the site.

We can and will demonstrate to the political establishment that we are unbeatable together and that unless this issue is finally resolved satisfactorily, there will be electoral consequences for the Government parties.

**RISE stands for RURAL IRELAND SAYS ENOUGH** and are supported by people in nature sports related federations throughout Ireland who value our distinctive and traditional country way of life. We are people who wish to conserve and develop a better way of life for ourselves, our children and for future generations.

Rural dwellers have endured many setbacks: falling incomes in agriculture and related businesses, closure of schools, closure of post offices and Garda stations, closure of council offices, poor planning, lack of broadband, and lack of proper rural transport.

Now, we face a threat to a distinctive form of recreation and sport that is enjoyed in rural Ireland by people from both rural and urban backgrounds. This threat has no basis in science or research; quite the contrary and FISSTA are founding members of RISE who support the defence of our angling rights to our waters now under threat.

## APPENDIX 2. FISSTA NATIONAL EXECUTIVE COUNCIL 2015

<b>PRESIDENT</b> <b>JOSEPHINE EGAN</b>	18 Healy Tce, Ballina, Co. Mayo	087 6379388	
<b>CHAIRMAN</b> <b>PAUL LAWTON</b>	37 Connolly Gm, Ballyphehane, Cork City	083 4185373	paul.lawton@hotmail.com
<b>VICE-CHAIRMAN</b> <b>BRIAN HEGARTY</b>	Malinmore, Glencolmcille, Co. Donegal	086 6864987	hegartybrian@eircom.net
<b>SECRETARY &amp; PRO</b> <b>NOEL CARR</b>	Teelin Road, Carrick, Co. Donegal	074 9730300	dgl1@indigo.ie
<b>ASST. SECRETARY</b> <b>MICHAEL STINSON</b>	Dreenan, Boa Island, Kesh, Co. Fermanagh. BT93 8AA	048 68631951	
<b>TREASURER</b> <b>DONAL O'DOHERTY</b>	Knockanes, Headford, Killarney, Co. Kerry	087 9903739	odohertydonal@yahoo.co.uk
<b>ASST. TREASURER</b> <b>RICHARD BEHAL</b>	88 Arbutus Grove, Deerpark, Killarney, Co. Kerry	087 4100691	
<b>North-Western River Basin District &amp; Loughs Agency</b>			
<b>BRIAN CHARLES</b> <b>MAXWELL</b>	Anahorish, Leggs, Enniskillen, Co. Fermanagh. BT93 2BE		max28394@gmail.com
<b>DAVY STINSON</b>	Dreenan, Boa Island, Kesh, Co. Fermanagh. BT93 8AA	04868631951	fisherdavy@aol.com
<b>ROY MORTIMER</b>	Brimor, Derryonane, Swinford, Co. Mayo	094 9251273	mortimerbrimor@eircom.net
<b>Western River Basin District</b>			
<b>BILLY SMYTH</b>	10 Colemans Rd, Shantalla, Galway	086 3511628	
<b>TOM MORAN</b>	Hurlers Cross, Newmarket on Fergus, Co. Clare	086 3613868	
<b>Eastern River Basin District &amp; Neagh Bann</b>			
<b>TOM BOURKE</b>	Loughloon, Westport, Co. Mayo	086 8331586	tbourkefishingwestport@gmail.com
<b>DAVID MAGILL</b>	Killiney, Co. Dublin	087 8173926	davidmagill@eircom.net
<b>JOHN CARROLL</b>	Kilcassey House, Kilcash, Co. Tipperary	052 6121123	john@jgskinner.ie
<b>Shannon River Basin District</b>			
<b>STEPHEN PRENDIVILLE</b>	Gurteen, killocrim, Listowel, Co. Kerry	087 7441810	
<b>KEVIN HANNAN</b>	16 Pennywell Rd, Limerick	086 0585554	caolmhinhannan@yahoo.co.uk
<b>PADDY GUERIN</b>	Kingfisher Castleconnell, Co. Limerick	087 2922413	paddyguerin@eircom.net
<b>South-Western River Basin District</b>			
<b>MICHAEL O'KEEFE</b>	Bounard West, Gneeveguilla, Killarney, Co. Kerry	087 7575664	
<b>TONY MILNER</b>	Curraough South, Tralee, Co. Kerry	087-1310425	
<b>South - Eastern River Basin District</b>			
<b>DJ O'RIORDAN</b>	8 Fair Hill, Killarney, Co. Kerry	064-6631743	riordan12@eircom.net
<b>FRANK KEOHANE</b>	Carbery House, Cagerass, Croom, Co Limerick	087 2714800	
<b>PAT O'FLAHERTY</b>	18 Sheres Park, Glasheen Rd, Cork	021 4344668 087 2843733	
<b>ARTHUR SOBIEY</b>	Broad Oaks, Rosebank, Douglas Rd, Cork	086 2540541 021 489088	arthursobey@yahoo.ie

## Appendix 3.

# PROFESSOR RONAN GORMLEY PAPER TO ITALIAN FOOD SCIENCE 2010

## Ethics and sustainability in the seafood chain

Ronan Gormley highlights some of the ethical and sustainability issues impacting on the seafood sector and gives a case study on the conservation of Atlantic salmon in Ireland

### Introduction

There is a global shortage of fish and stocks are continuing to dwindle; many conventional fish species are in short supply (1). This increases the need to exploit new fisheries and underutilised species, and to expand fish farming. This, in turn, exerts ethical and sustainability pressures on fishing worldwide and raises many issues relating to fish stocks, their conservation, the environment, and to coastal communities. There are many definitions of ethics and sustainability but two that fit the current context are: (i) ethics is a code of professional standards, containing aspects of fairness and duty to the profession and the general public; and (ii) sustainable development is that which meets the needs of the present without compromising the needs of future generations to meet their own needs. Ethics and the environment are very closely linked.

### A changing scene

The seafood area is always in a state of flux and many influences have a bearing on it. For example, the Common Fisheries Policy (CFP) is a major player and lays down markers for European sea fisheries. An article in *Food Navigator.com* (March, 2010) stated that

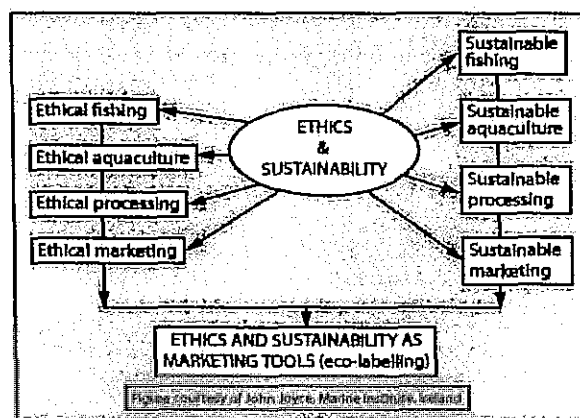


Figure 1. Twin necessities in seafood production: long-term survival and short-term market imperatives.

Atlantic bluefin tuna stocks decreased by 80% in 40 years and cited a meeting of Energy ministers of EU States in March 2010 to adopt a Commission proposal protecting bluefin tuna. Conditions include: (i) 1-year delay on hunt; (ii) opt-out for artisanal fishermen; and (iii) consideration of financial compensation. These are examples of the ongoing stream of influences affecting the seafood sector.

### Twin necessities approach

This is depicted in Fig. 1 and embraces the ethical (left side) and sustainable (right side) issues needed to ensure long-term survival of the seafood sector coupled with short-term market imperatives. The final goal proposed is to use ethics and

sustainability as marketing tools embracing an eco-labelling approach.

### Ethical and sustainable fishing

**Ethics.** There is pressure on conventional fish species, and also on underutilised species, due to quotas and shortage of supply. The ethics relating to super-trawlers may be dubious in that they can 'hoover' up the local fish stocks thus depriving disadvantaged coastal communities of their livelihood. Smaller 'day' boats (i.e. the return trip is <24 h) are a more ethical option in that their catches are much smaller and they also supply daily fresh fish to local communities. By-catch is also an ethical issue as catching small fish

will lead to stock depletion and reduction in feedstock for larger fish. Discards are also unethical in that there is a shortage of fish and there is little merit throwing dead over-quota fish back into the sea. However, the CFP is endeavouring to provide solutions to this problem.

**Sustainability.** The CFP is one of the cornerstones of sustainable fishing. It was reformed in 2002 and reviewed in 2008 and embraces a number of measures including:-

- Conservation measures (total allowable catch).
- Strategy for by-catches and discards.
- European fisheries fund (€1.8 billion/7 yrs) supports sustainable exploiting and development of fisheries; strengthens competitiveness of operators; promotes environmentally-friendly fishing and production methods; and provides support for people employed in the sector.
- Fleet management.
- Common organisation of markets.
- Agreements with third countries.
- Control and enforcement.

Fishing down the food chain is not conducive to sustainability. This depletes successive stocks (in size and species) and in the case of very small fish deprives larger species of their feedstock. Reducing by-catches (by having escape panels in nets) and discards will aid sustainability as will setting up Marine Fisheries Reserves (MFRs). There are about 4,000 MFRs worldwide and no fishing is allowed in these areas (see many web articles). There is ample evidence that there is excellent recovery of species in the MFRs. However, they

represent <1% of the total ocean.

The major fishing sustainability requirement is an eco-systems approach to fishing and a start has been made by the Marine Stewardship Council (MSC) ([www.msc.org](http://www.msc.org)). The MSC's fishery certification programme and seafood eco-label recognise and reward sustainable fishing. Many supermarket chains now use the blue MSC eco-label.

The World Wildlife Fund ([www.worldwildlife.org](http://www.worldwildlife.org)) is another body which has a common vision for environmentally-sustainable fishing.

#### Ethical and sustainable aquaculture

**Ethics.** There are many ethical issues associated with aquaculture and the environment. For example, many hectares of mangrove swamps have been decimated to make way for prawn farming. The location of fish farms in scenic areas is also likely to conflict with local tourists interests. However, the move to organic salmon farming where cages are larger and are located in areas of greater water movement tends to lessen impact on the seabed.

Feeding vegetable oil rather than marine oil in the farming of fatty fish (salmon and trout) will lead to fish with a vegetable rather than a marine fat profile. The fish are then 'converted' to marine oil near time of harvest to improve their fat profile. This is deceiving for consumers who are well aware of the benefits of omega-3 polyunsaturated fatty acids (PUFAs). This highlights the major requirement of finding alternative sources of marine oils with  $\omega$ -3 PUFAs. Single-

cell oils may be one avenue to  $\omega$ -3 PUFAs (2) as may microalgae (3).

A study by Cronin *et al.* (4) has indicated big differences between the fat status of wild versus farmed salmon (Table 1). Despite relatively similar PUFA contents in the flesh oil of both types, the wild salmon had a much higher ratio of  $\omega$ -3/ $\omega$ -6 PUFAs than farmed (Table 1); this is a reflection of the formulated feed used for the latter. There was more variation in the fat status of wild salmon than farmed as indicated by coefficients of variability values.

On occasions, so-called production grade farmed salmon is sold in retail outlets. These fish have poor condition (low condition factor) (5) and have elevated water content and reduced fat content, i.e. fat trades with water (Table 2). This deceives consumers as in effect they are buying low fat fish with much lower  $\omega$ -3 PUFA content.

**Sustainability.** Feed for farmed fish raises major concerns about the

sustainability of aquaculture. Firstly, there is a significant consumption of diesel by boats catching the marine component of the fish feed, i.e. fuel versus feed issue. It has been estimated that 5 kg of anchovies are required to produce 1 kg of fish feed (many web articles). Secondly, catching small fish (sandeels, anchovies, sprats) depletes the feedstock of larger fish. This highlights the requirement of finding alternative sources of marine oils or producing them via biotechnology.

Other factors mitigating against sustainability include environmental issues relating to farm locations, and contamination of the foreshore and seabed in the vicinity of fish farms.

#### Ethical and sustainable processing

**Ethics.** The so-called PPP (product-process-package) factors must be considered when processing fish or shellfish (6). Processing methods must not seriously reduce fish nutrient content and must be such that

good waste management practices are facilitated in-factory. Adding excess water to fish via the inclusion of polyphosphates or by too-heavy glazing deceives consumers, most of whom are totally unaware of these practices. Other examples of consumer deception are fish burgers or other products that are over-extended with non-fish components or with an inferior fish species. Producing fishmeal for feeding farm animals (e.g. mink) is unethical as it is total misuse of a precious resource, i.e. marine oil.

**Sustainability.** It is important when building processing factories to locate them in regions that can supply sufficient fish on a year-round basis to enable the factory to operate at 100% capacity. Often this is not the case. Whole fish utilisation is also an imperative for sustainability, i.e. fillets for human consumption, and oil/waste as sources of bioactive compounds. The latter is receiving considerable attention, see for example, the Nordic Network on Marine Functional Food - MARIFUNC - [www.marifunc.org](http://www.marifunc.org); the Functional Foods Forum, University of Turku - [www.utu.fi/fff/](http://www.utu.fi/fff/); and also NutraMara: Marine Functional Foods Research Initiative, Ireland - [www.functionalfoodsireland.eu](http://www.functionalfoodsireland.eu), including the concept of fish as a functional food (7). Using processing methods giving improved energy efficiency is also conducive to sustainability.

#### Ethical and sustainable marketing

**Ethics.** The MSC is a major player in promoting ethical marketing of seafoods and many supermarket

Sample	Condition factor (%)	Ratio $\omega$ -3/ $\omega$ -6 PUFAs (g/100 g oil)	EPA + DHA LA
Wild (n=12)			
Mean	1.32	18.3	12.5
CV (%)	29.2	15.0	30.3
Farmed (n=10)			
Mean	0.81	16.1	2.7
CV (%)	10.5	9.1	17.8

EPA = Eicosapentaenoic acid, DHA = Docosahexaenoic acid. Data from (4).

Table 1.  $\omega$ -3/ $\omega$ -6 PUFA ratios of wild and farmed salmon.

Condition factor	Mean	Median	CV (%)
1.21-1.30	10.7	20.1	13.2
1.31-1.40	8.8	20.0	11.1
1.01-1.10	68.1	19.4	12.5
<1.00	71.2	1.9	9.2
<0.80	77.0	10.0	5.1

Condition factor (CF) = [fish weight (g)  $\times$  100] / [fish length (cm)]<sup>3</sup>; CF for farmed salmon >1.1 (grey-in) and <0.9 (white); 'reconditioned' fish.

Table 2. Composition versus condition factor of ungutted fresh farmed salmon.

## CASE STUDY:

## The Atlantic salmon in Ireland

There has been a steady (and dramatic) decline in the numbers of wild Atlantic salmon (*Salmo salar*) entering Irish rivers over a number of years and major conservation efforts are in place in an effort to conserve stocks (Fig. 2). The decline is due to a number of factors: (i) mortality at sea is a major factor and gave rise to the ongoing SAL SPA-Merge (7<sup>th</sup> Framework EU project) ([www.marsa.millias/salspa/merge.htm](http://www.marsa.millias/salspa/merge.htm)); (ii) drift netting in the sea (monofilament); (iii) ring (draft) nets in river estuaries; (iv) salmon traps in rivers; (v) too much angling; and (vi) pollution and environmental issues, e.g. the effects of conifer forests. This situation is repeated to a greater or lesser extent in all countries that have Atlantic salmon.

## Salmon returning to Irish rivers

The upper (blue) line in

Fig. 2 shows that a higher proportion of wild smolts returned as adult salmon to spawn in Irish rivers than those reared in a hatchery (lower line) and then released into the wild. However, since 1998 the two lines are almost superimposable with only about 5% returning to spawn. This contrasts with a returning figure of 32% for wild smolts in 1986 (Fig. 2). The data (Fig. 2)

are pre-fishery-abundance (PEA) figures and are independent of salmon that are caught by fishermen. The PEA data are based on a run construction model which gives reliable data for juvenile fish and marine survival, and accurately predicts the number of pre-fishery adults.

## Life-cycle of the Atlantic salmon

This is shown in Fig. 3 with most salmon returning to spawn after two years.

at sea. They always return to the river of their birth. Mortality at sea is causing most concern and the exact reasons have not yet been pinpointed. It may be due in part to the changes in the Atlantic Ocean. For example, currents are changing, water is getting warmer, storms are getting stronger, and food resources are under threat. The response of zooplankton to climate change is the great bio-geographical change, i.e. there is a northward movement at an average rate of 23 km per year. This has led to species with warm water preferences advancing in the north Atlantic and the retreat of a number of coldwater species. These rapid changes in plankton communities have major consequences for other sea creatures that feed on them. Smolts leaving Irish rivers migrate to Greenland by two routes. Some go north to the coast of Norway and from there to Greenland.

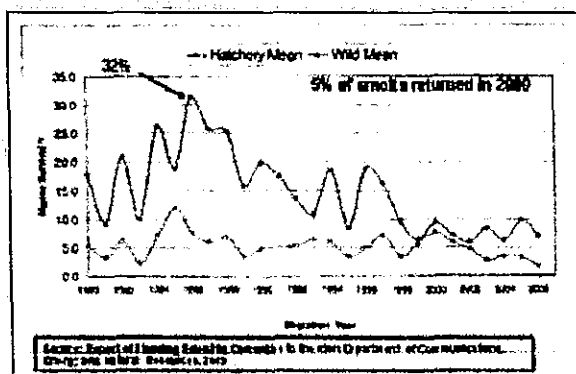


Figure 2. Pre-fishery abundance data.

chains now display the MSC blue eco-label on their products. Labelling indicating fish origin is good practice as it raises consumer awareness and confidence of/in the product. Activities opposed to ethical marketing include selling production grade farmed salmon to consumers (Table 2), and selling freeze-chilled fish from the wet fish counter which leads the consumer to believe that the fish is chilled fresh fish rather than previously frozen fish.

Clearing product in supermarkets by giving cheap deals with almost an immediate 'use-by' date is an unsafe procedure as many fish products are 'pushed' to the limits of their shelf-life

by processors and retailers.

The concept of fish freshness is also an ethical issue. One-day trawlers deliver fresh fish in the true sense of the word. Weekly or 10-day trawlers using ice and refrigerated seawater hold fish for the duration of their time at sea. Such fish may show a serious deterioration in quality as based, in some cases, on sensory and total volatile base nitrogen (TVBN) values (Table 3). TVBN values should be <35 mg/100 g (Council Regulation No. 95/143/EC).

**Sustainability.** The MSC blue eco-label is a cornerstone of sustainable marketing and its widespread use by retailers is advocated. Other factors

supporting sustainable marketing include: (i) utilise well-proven quality systems for ensuring quality maintenance in the seafood chain and especially during transport and distribution; (ii) tap good sources of fish supply; (iii) be active in international fish dealing

and markets; (iv) carry a wide range of seafoods both un-processed and processed; (v) emphasise and re-emphasise the health-promoting effects of fish; and (vi) win consumer confidence by giving total information about the product.

Days in ice	Freshness score*	TVB-N (mg/100g)
2	2 (trace of off-flavour loss)	10
5	3 (slight sweetness)	20
8	4 (trace of off-flavour loss)	22
11	5 (flavour loss)	27
14	6 (trace of off-flavour)	37
17	7 (off-flavour, bitter)	76
20	8 (light sulphide flavour)	85

\* 1 = sea-fresh and sweet; 0 = strong off-flavours of sulphides. Data of Whittle *et al.* (1990). Chilled fish and fishery products, Inc. 'Chilled Foods: the State of the Art' (ed. J. R. Gormley), 87.

Table 3. Quality of boxed teal cod.



Others take a north westerly route via the north of Ireland and then onwards to Greenland. Observations show that the former fish are poorly conditioned suggesting a shortage of food while the latter fish are well conditioned. This may be one of the reasons for the high rate of mortality at sea. Collection of these data have been facilitated by genetic outcomes from the SALSEA-Merge project: (i) assigning salmon caught at sea to river of origin, or at least to region of origin,

is now possible; (ii) major progress has been made in establishing an international database; (iii) work on determining the origin of samples caught in the 2008 and 2009 marine surveys is underway; and (iv) a wealth of archival material has been generated and is being analysed.

#### Conservation measures

Sustainability measures (including ethical aspects) taken in Ireland to conserve the Atlantic salmon include: (i) buying-out drift netting

(by government); (ii) buying-out ring (draft) netting (by government) on certain rivers; (iii) buying-out salmon traps (by government); (iv) closing some rivers to angling (however, 70/148 Irish rivers are still open for angling); (v) operating 'catch and release' schemes in some rivers; (vi) limit salmon numbers caught/anglers in rivers; and (vii) operating a tag system for wild fish offered for sale.

It is premature to assess the effects of these recently introduced conservation measures but first indications were obtained in May/June/July 2010 as returning salmon entered the rivers. Indications to date are that salmon numbers entering some Irish rivers are still disappointingly low suggesting that fish-dying at sea is still the major problem.

There are a number of international groups/organisations involved in salmon conservation

NASCO (North Atlantic Salmon Conservation Organisation) ([www.nasco.int](http://www.nasco.int)) is probably the best known. It is an inter-governmental organisation devoted to preserving the wild Atlantic salmon.

#### Conclusions

There is a grave danger that stocks of Atlantic salmon will be further depleted unless the 'mortality at sea problem' can be alleviated. Firstly, the exact causes of this have to be identified, and secondly, action must be taken to offset the causes. The latter may be very difficult to achieve in practice. In addition, strict conservation measures must be implemented and sustained in coastal regions and in estuaries and rivers. Dynamic co-operation at national and international level is, therefore, an essential requirement if stocks of wild Atlantic salmon are to be maintained or increased.

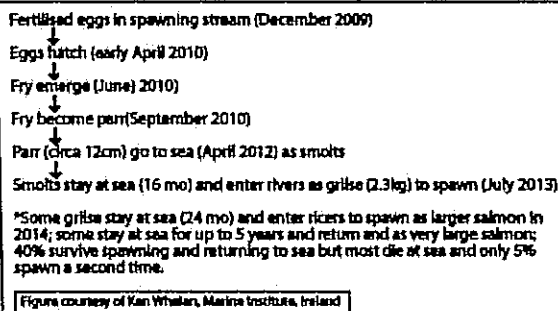


Figure 3. Life cycle of the Atlantic salmon.

#### The future

The future lies in using ethics and sustainability as marketing tools (Fig. 1), and also the use of eco-labelling. This requires progress on all the ethical and sustainability issues discussed above. In addition, it is only through the determination of all players in the seafood chain that the twin necessities of long-term survival and short-term market imperatives can be delivered.

#### Acknowledgements

This article is based on a lecture given at a conference on 'Ethics and Innovation in Food Science and Technology' held in Bertinoro, Italy on 18-19 March 2010 in memory of the late

Professor Carlo Lerici (10<sup>th</sup> anniversary). Grateful thanks are extended to Marco Dallo Rosa for the kind invitation to speak. Thanks are also extended to Ken Whelan (Marine Institute), John Joyce (Marine Institute), Majella Fitzsimons (Irish Sea Fisheries Board), Joe Somers (Seafood Consultant), Pat Doherty (Eastern Region Fisheries Board) and Kieran Caffrey (Boyne angler) for their help in preparing the lecture and article.

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## Appendix 4.

### DAIL EXCHANGE WITH DEPUTY O CUIV 17.5.15

#### Aquaculture Licences

137. Deputy Éamon Ó Cuív asked the Minister for Agriculture, Food and the Marine the number of applications received each year by his Department for fin-fish farming licences since he became Minister; the number of these that have been decided; granted; refused; and broken down between renewal of licences and new licences; and if he will make a statement on the matter. [6623/15]

Deputy Éamon Ó Cuív: Several fin-fish farming licence applications have been with the Department for a long time. It is reasonable for objectors and applicants that they get some certainty regarding the timelines for which decisions will be made on these licences. It was recently reported that the Minister said in the case of one application that a decision will be made soon. Will he clarify what "soon" means?

Deputy Simon Coveney: It is a fair concern to outline that there have been some challenges with aquaculture licensing. Before I came into office, no aquaculture licence had been granted for five years. The European Commission took Ireland to court because its licensing system was not fit for purpose.

(Speaker Continuing)

[Deputy Simon Coveney: ] As a result, we have put a licensing system in place that would be required as gold standard, which involves having to assess all the bays around the country that are categorised as special areas of conservation, which is practically every bay with the exception of one or two. That takes time. The decision-making process does not just involve me and my Department. It involves the National Parks and Wildlife Service, the Marine Institute in terms of scientific advice and - obviously - it involves a process that allows stakeholders and objectors to be able to make know their views. It involves a public consultation process as well, and all of that takes time.

It is worth noting that in 2014 I made positive determinations in respect of two renewal applications for fin fish farming for trout farms. By comparison, since taking office I have made 278 determinations in respect of shellfish aquaculture. When we get a system working, which we now have for shellfish, I will make decisions as soon as I have a scientific, sound basis to do so. Fin fish farming has proved to be more complex than that, particularly around salmon and the location of salmon farms, salmon cages and so on. For the record, because people seem to think I am a Minister who just wants to drive through salmon farm applications all over the place, I have not granted one salmon farm licence application since coming into office and I will not until I get recommendations on my desk, from the Marine Institute primarily backed up by my own Department officials, to the effect that it is appropriate to grant the licence. I would like to see the salmon industry grow in Ireland but I will only do it in a way that guarantees the sustainability and environmental protection of the bays and marine environment for which the applications are being proposed.

Deputy Éamon Ó Cuív: I asked a number of very specific questions which the Minister has not addressed. The first part was to ask him for the number of fin fish farming licences that have been applied for each year since he came into office, the number that have been decided and the number refused, broken down between renewals and new licences. Can he tell me how many applications he has received, how many decisions he has made, how many were grants, how many were refusals, and what is the breakdown between renewals and applications?

The Minister always talks about processes. Would it be possible for him to ask his officials in the next week to give me a briefing note on the actual processes followed by him in assessing an application? The Minister says he get advice from Foras na Mara and so on. Can he get somebody to detail to me what those processes are and whether there are any timelines to them? Is it possible to find out how far down the process each application has gone? That would be a help in terms of openness, transparency, accountability and better government.

Deputy Simon Coveney: On the first question, in 2011 two applications were received; in 2012 two applications were received; and in 2013 and 2014 no applications were received for new licences for fin fish farms. On renewal of licences, eight applications were received in 2011; nine applications in 2012; two applications in 2013; and two applications in 2014. It is important to say that in the case of renewals, there is a statutory guarantee to allow operators to continue operating while the renewal is being considered. We obviously would not want to shut down businesses while there is a consideration of a renewal. We do have a statutory guarantee that the companies can continue to operate while their renewals are being considered. We are not talking about huge numbers of applications here.

There is not a timeline on the process. I have looked at introducing one but that does pose problems because sometimes if we have to put scientific-based assessments in place, that does take time. Sometimes we have to take on extra contractors to do it. We are looking all the time at ways we can increase the pace of the consideration of these applications but when there is a detailed application - some of them are controversial and the Deputy is very familiar with a few of them - they take time. Deputy Ó Cuív is familiar with that.

Deputy Éamon Ó Cuív: The Minister seemed to indicate there - I was making quick notes - that there are more than 20 applications for renewal. How many of those have actually been renewed and how many are operating on the basis that they can continue doing what they are doing without a formal renewal?

Many people around Galway are very concerned about the proposal for the fin fish farm in Galway Bay. It is fair to say that the uncertainty is causing deep upset among the public. It was reported that the Minister said a decision would be made on that soon. That was reported in the newspaper even though I can never get any indication from him here. Can he tell me within what timescale - two months, three months or whatever - he expects to make a decision on the application for the Bord Iascaigh Mhara, BIM, fish farm in Galway Bay?

Deputy Simon Coveney: Just to be clear, as I said earlier, we made positive determinations in respect of two renewal applications and both of those were trout farms, nothing to do with salmon at all. I am not going to give a timescale for the Galway Bay application because I have to wait to get recommendations on my desk. I have put those who are considering this application under some pressure to try to get those recommendations onto my desk but I am far more concerned about getting the decision right than I am about getting a decision made quickly on an application of that size and scale. I think people would expect that from me. Ends

## **Appendix 5.**

# **MINUTES OF MARINE HARVEST – GOVT MEETING IN LEINSTER HOUSE – 30.1. 2014**

Meeting between Marine Harvest Group and an Taoiseach  
Government Buildings, 30 January 2014

### **SUMMARY REPORT**

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**Attendance:**

An Taoiseach  
Minister Coveney  
Minister of State McGinley  
Deputy Joe Mc Hugh  
Paul O' Brien, Dept. Taoiseach  
Maura Duffy, Dept. Taoiseach  
Cecil Beamish, DAFM  
John Quinlan, DAFM

Alf-Helge Aarskog, CEO, Marine Harvest Group  
Jan Feenstra, CEO, Marine Harvest Ireland  
Catherine Mc Manus, Technical Manager, MHI  
Pat Connors, Sales Director, MHI

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**1) Purpose of Meeting**

The meeting was held at the request of the company to discuss licensing and industry development issues associated with the company's operations in Ireland.

2) The Taoiseach explained that specific cases such as the Shot Head application could not be discussed in detail in view of the statutory basis of the assessment process. Appropriate regard would also have to be had for EU Directives and the role they played in the licensing system. However within these parameters everything was being done to remove obstacles for business. The Government was fully supportive of the company's operations in Ireland and the employment that was created in coastal regions.

3) Mr. Aarskog gave a broad overview of the company's global operations. In particular he cited Scotland, where the company had 500 employees and an £80 million investment. The company was aware that its operations needed to be environmentally sustainable. The challenge for its operations in Ireland was the need for a 'predictable' licensing system which would facilitate investment. Mr. Feenstra pointed to the disease control issue and said the company needed to spread its risk by having access to more sites and by changing the terms and conditions of its licences to better reflect technological advances. The company acknowledged the assistance and cooperation it received from the Department on the disease issue, especially in relation to sourcing fresh water supplies. The company fully supported the aims of Food Harvest 2020. However, to achieve these production targets the company felt the industry needed a 'champion' to take a developmental role (as distinct from the regulatory role) to drive forward the interests of the industry and to coordinate interactions with the EU Commission (DG Environment) and Inland Fisheries Ireland. The company felt it important that there should be 'one voice' communicating with the Commission from Ireland in relation to the industry.

4) Minister Coveney pointed to the Government's decision to allocate Fisheries to a senior Minister which was a clear indication of the priority attached to the industry. He referred to the 2007 ECJ Judgement against Ireland which necessitated the introduction of a very complex system of licensing. This had been negotiated with the Commission and was the only practical way to proceed. It was clear that the system was achieving results as indicated by the fact that 115 licence determinations were made in 2012 and 137 in 2013. More than 200 licence determinations were on track for this year. The system was not without frustration for everyone but there had been very significant advances made over the last two years. The Minister was hopeful that a determination could be made in respect of the Shot Head application by Easter. The licensing system in Ireland was operating under intense scrutiny and challenges from numerous NGOs which was not the case in Scotland. It was possible similar challenges would arise in Scotland in the future.

5) Minister Coveney noted the position of DG Mare in respect of increased aquaculture production but the fact was DG Environment had a different focus and this added to the complexities encountered. The Department was seeking to identify 'deep sea' sites for aquaculture which would be outside designated NATURA areas. The first of these was in Galway Bay and investigations were also ongoing by BIM and the MI in respect of potential sites off Mayo and Donegal. The company said they would like to see the Marine Institute enter into a 'service agreement' with the Department which ensured the timely delivery of scientific advice. The delay by the Institute in delivering advice on the Shot Head application made the overall system very unpredictable in terms of timelines. In Scotland it took approximately 22 months to get a licensing determination. The company also felt it was losing market share because it could not guarantee supplies of fish to retailers. Minister Coveney and officials pointed to significant structural changes that had recently taken place within the Marine Institute which, it was expected, would enable the Institute to respond faster to the Department.

6) The Department pointed to the gap that existed between the total annual production of the industry (10,000 – 13,000 tonnes) and the amount of tonnage that was actually licensed (approximately 32,000 tonnes). The Department was working with BIM to identify licensed sites which were under performing in terms of production and would examine all options for ensuring that the foreshore in question was fully utilised as envisaged in the licence. The successful example of South Connemara could act as a template on how to proceed nationally.

7) The following measures/steps were agreed:

- The Department will expedite its work on identifying under performing sites
- The new structural changes in the Marine Institute will be monitored to ensure they produce a faster turn around on scientific advice.
- The deep sea aquaculture initiative would be progressed in respect of Galway, Mayo and Donegal
- The Department would continue to engage with DCENR in respect of the angling perspective on the industry
- Minister Coveney would be available to meet with the company again at the March NASF conference in Bergen
- The Taoiseach would be willing to meet with Mr. Aarskog again in six months to review the situation.

The company thanked the Taoiseach and the Ministers for the meeting which they regarded as very constructive.

Ends

## **Appendix 6.**

# **MINUTES OF MARINE HARVEST AND MINISTERS MEETING IN OSLO - MARCH 2014**

Record of a meeting between Minister Coveney and Jan Feenstra, Marine Harvest Ireland at the  
North Atlantic Seafood Forum

Bergen, Norway

6<sup>th</sup> March 2014

Present:

Jan Feenstra Marine Harvest Ireland

Minister Coveney

Kieran Calnan, Chair of BIM

Cecil Beamish, DAFM

Jason Whooley, CEO of BIM

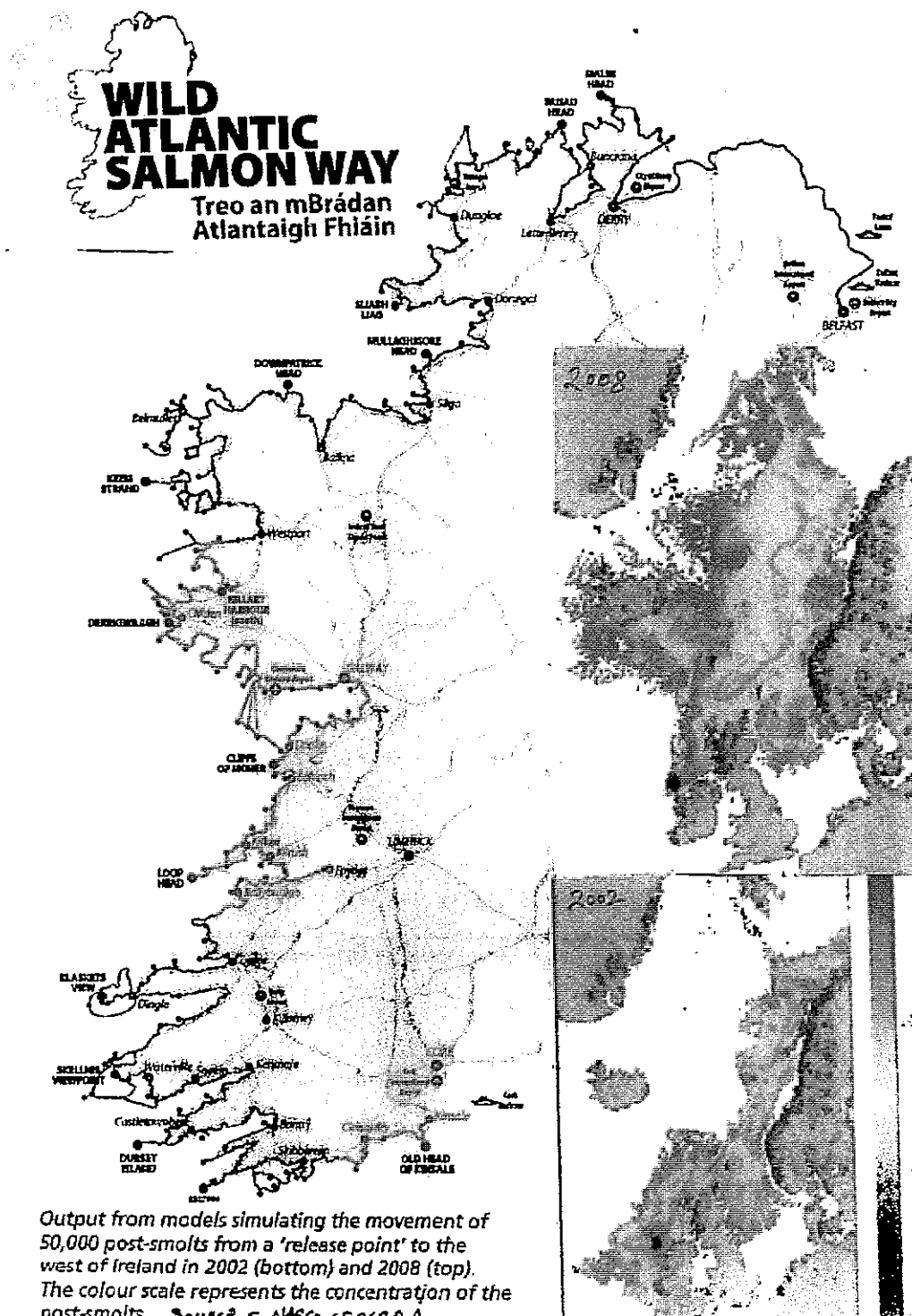
Minister Coveney had a brief meeting with Jan Feenstra en marge of the North Atlantic Seafood Forum in Bergen. The meeting was brief and general in nature. Mr. Feenstra outlined the history and scale of Marine Harvest operations in Ireland and set these in context vis à vis Marine Harvest operations in Scotland, Norway, Chile and Canada. Mr. Feenstra explained that the Irish operations of Marine Harvest had been relatively static and declining in output terms in recent years relative to the significant expansion of Marine Harvest's activities in other countries. Mr. Feenstra also outlined the rapid growth of the salmon farming industry globally and the market projections for further rapid growth of the farmed salmon market globally. Mr. Feenstra queried what role Ireland would have in relation to the future development of salmon farming globally.

Minister Coveney outlined his views that he also saw the global potential for a rapid expansion of aquaculture generally, including salmon farming, over the next decade. The Minister indicated that he saw potential for sustainable aquaculture development in coastal areas in Ireland and that he felt that it had potential to create jobs and value added in coastal areas which had limited opportunities for job creation. The Minister remarked that it was not sustainable that the Irish Salmon processing and smoking industries had to import farmed salmon as a raw material for their operations. However, the Minister stressed that while he saw the potential for aquaculture development this would not influence any individual decisions he might make in individual cases and that these would always be informed by the overall merits or otherwise of the specific application, the sustainability of the project and the expert advice received in each case.

Mr. Feenstra thanked Minister Coveney for the meeting

# Appendix 7.

## FISSTA GRAPHIC OF WILD ATLANTIC SALMON WAY – MIGRATORY CHANNELS FOR WILD SALMON SMOLTS INCLUDING UK AND EUROPEAN FISH THAT IRELAND MUST PROVIDE SAFE PASSAGE THROUGH IRISH WATERS





# Appendix 8. INSHORE IRELAND ARTICLE – SALMON EXTINCTION ON THE CARDS - FEB 2015

## Salmon extinction on the cards if licences are granted

By Noel Day

**T**he Federation of Irish Salmon & Sea Trout Anglers (FISSTA) has been attempting to engage with the real farmers of Ireland ever since the Irish Farmers' Association issued a report claiming 600 fish farm licence applications had been in the system for more than five years and that aquaculture could create up to 2,000 additional jobs in coastal areas, leading to €500 million in further exports.

Sadly, the creation of these new jobs will be at the expense of 15,000 jobs already created in angling tourism which delivers over €750 million to the State

### SALMON FARM APPLICATION

Since BDA submitted an application in August 2011 for a 15,000 tonnes salmon fish farm, quite a lot has transpired to sink the initiative, in which a number of international aquaculture operators expressed interest, operating on behalf of the State agency.

BDA is also seeking an aquaculture licence for a 5,000 tonnes farm between Inishfin Island and Inishbeg, Co Mayo, which it applied for last year but as yet no TD appears to have been lodged.

The Ireland Against Salmon Cages group led by FISSTA has opposed the applications

on environmental grounds, claiming they pose significant risk to the Liscarr area, citing such disasters as the 200,000 salmon escape due to adverse weather conditions in Barry Bay last February which began negatively on all wild salmon and sea trout habitat in the south west.

The marine report on this the largest farmed salmon escape to the world was refused by Minister Simon Coveney, claiming it was confidential

### HABITATS DIRECTIVE

Minister Coveney also pointed out to Independent Kerry 111, Tom Fleming, who asked about the number of aquaculture licences issued, that the European Court of Justice found that Ireland had failed to fulfil its obligations under the Habitats Directive. The Minister said a process was agreed with the European Commission which would lead to full compliance.

Just in case there was any doubt in his constituency for outdated technology of the open salmon cages, he promised that "significant progress will be made" this year in licensing around the Irish coast and that more than 200 licences had been issued in the past three years for bays, including Inner Barry Bay, Ruarapwater Bay, Killary Harbour and Castlemaize Harbour.

The ten mega salmon farm idea for over 130,000 tonnes per annum by the Minister seems very much alive as he clarified that a decision on the first of ten

controversial applications, for a fish farm near Liscarr in Galway Bay, will be made "as soon as possible".

### SCIENTIFIC DEBATE

In response to his Dáil answer, journalist Fergal Keane on RTE Drivethru (January 28th 2015), did the carbon a great service by exposing part of the fishy salmon farming story against our wild fish habitat.

Every scientific report has highlighted the real impact but fish farm interests ignore the level of damage and our wild fish continue to die despite the scientific debate having been won long ago.

We all know more than enough to avoid farming salmon in or around Irish waters that cause Amoebic Gill Disease and massive sea lice infestation at the paciferae stage in the parr.

It is time to leave the open cage fish farming industry to Scotland and Norway with productions of 200,000 tonnes and 1.2m tonnes respectively. Ireland can never compete at that level as our meagre 10,000 tonnes of production makes the political decision not to grant any more licences at present a much easier one.

It is time to avoid any further gamble in our wild fish which supports 15,000 jobs and generates an economic impact of €750m to our west coast of Ireland communities.

The Minister is conflicted when he admits "there is always a strict separation between my ministerial role as decision maker in respect of aquaculture licence applications and my ministerial duty to promote the sustainable development of the industry. This separation of duties is strictly observed."

But we anglers know better and with such potential damage to our native environment, tourism and economy, it must not be his decision alone.

The implications are so catastrophic that the decision must be a collective decision one as the time has come for Ministers Coveney, White, Kelly and Noonan to exercise a positive moral and do the right thing by rejecting the application to save the future for the fish and the environment.

Let's not let the Minister's decision be the final one.

Do nothing and leave our wild Atlantic salmon alone.



Noel Day, Secretary, FISSTA



## **Appendix 9.**

# **DONEGAL GAME ANGLING FEDERATION - LEGAL CASE IN SUPREME COURT**



**Donegal Game Angling Federation supports FISSTA in their campaign to end salmon farms in Irish waters and to protect the very wild fish resources we have for the greater good of the nation.**

The DGAF was formed in the mid 1990's to progress angling in Donegal in support of our national federations of FISSTA and TAFI. The DGAF campaign to protect their Donegal waters resulted in the present legal case awaiting deliberation in the Supreme Court.

Coiste Bainistíochta: Runai Peadar O' Baoill, DGAF PRO Noel Carr, & Cathaoirleach Sean O' Baoill.

### **Background to the Gweebarra River Protest- County Donegal.**

The Gweebarra is a spring salmon river in Co Donegal. It is approximately sixteen miles long, entering the sea at a village called Doochary. A famous High Court case was fought in 1906 which resulted in the local netmen on the estuary winning the rights to fish from Marquis Conyngham and Lord Mayo.

Since that time the river has been open to all anglers, providing that they possessed a State license. In that year the Northern Regional Fishery Board laid claim to the river and took it into state control, claiming that it owned all the fishing rights along its' entire length. The Board then colluded with a group of people to set up an angling club, commencing with a small membership of approximately ten people. This membership was comprised of holiday home owners and others from outside the district, along with the netmen who fished the estuary. The elected secretary of this group was not and is not an angler.

Whenever anglers from nearby villages, particularly Fintown and the Rosses, who had fished the river for decades, applied for membership they were refused on the basis that they were not within the selected catchment. The new club signed an agreement with the Fishery Board, in which it accepted conditions that totally mitigated against local anglers, even members, in terms of access to the river. For example, during the spring run period, visiting anglers have 19 rods on the river on Thur - Sunday; members have 3 rods. The position is reversed on Mon -Wednesday of each week. So if you wish to fish your local river you most likely have to take days off work. Some anglers who have fished the river for over 50 years have been refused membership and now have to pay a daily permit which will

increase once this plan is in place.

The clubs within the Donegal Game Angling Federation (DGAF) protested the moment this agreement, which was negotiated in secret, became known. In response, the Board immediately imposed a boycott on the new Federation Committee and has refused to meet with the anglers representative body for almost three years, ignoring the fact that the affiliated clubs wrote letters asking that they be represented by the Federation. In addition the Board refused to issue a copy of the agreement to the Federation and has also ignored requests from the Federations' solicitors to provide evidence of their ownership of the fishing rights. In actual fact, following the signing of the agreement, the Board despatched two people around the local landowners, persuading them to sign over their rights on the river for periods up to ten years. At a subsequent local meeting with the Board CEO and his staff, the land owners suggested that the deal should be set aside and a new approach be adopted. The Fishery Board personnel refused and left the meeting, stating that " the agreement stood".

The anger was such that local anglers defied the Board and protested by fishing the river without purchasing the new permit and many are being prosecuted at this point in time. The Chairman of the Federation, at the behest of the clubs, has made several attempts to engage the Board in dialogue. All requests were met with silence but instead, in August, the Board applied to the High Court in Dublin for injunctions against named anglers and officers of the Federation.

This action by the Board, designed to put the voluntary organisation in extreme financial difficulty, had to be defended by the Federation. The High Court Judge opened the case by asking had there been any attempt to resolve this dispute through dialogue at local level. Following the arguments presented, the Judge refused to injunct the anglers and instead he appointed a mediator, informing both sides that they would be well advised to use his services or face even further "ruinous costs".

That is the position that pertains today. Mediation had been accepted by both sides, something that could have happened three years ago had the Board not chosen to act in a very undemocratic way and before massive costs were incurred on both sides. The Federation feels totally vindicated in that all it ever wanted was the opportunity to present its case. ***However, that is small consolation in light of the financial burden that it now faces as their Supreme Court appeal is now underway to defend an angling right to waters that has been fished for generations. The national groundswell of support for the Rosses and Fintown Angling Clubs campaign under the direction of the Donegal Game Anglers Federation is viewed as a test case by the national federations of TAFI and FISSTA's 60,000 strong angling membership to resist the undermining of our volunteer club management of their own local waters on every river in Ireland. Ends.***

**Appendix 10.**  
**ANGLING FEDERATIONS ALLIANCE**  
**SIGNED AGAINST FISH FARMING**

**FISSTA PRESS RELEASE**

**IRISH ANGLERS UNITE TO FIGHT FISH FARMS**

**IRISH ANGLING FEDERATIONS UNITE WITH FISSTA TO OPPOSE  
MINISTER COVENEY'S TEN MEGA FISH FARMING PLAN**

The campaign against the ten mega fish farm plan of Minister Coveney TD took another giant step forward this month when all the major angling federations met and finally signed up to a document that declared war on the government policy of open net cages in Galway Bay and nine other locations along the west coast.

The Federation of Irish Salmon and Sea Trout Anglers (FISSTA) are delighted to announce an inter federations agreement between fellow anglers to unite and campaign on like-minded issues as signed recently on February 13th in Hilton Hotel Kilmainham. The document outlined a number of issues in which all the signatories agreed to pursue and campaign against and FISSTA succeeded in obtaining agreement to oppose the salmon farming policy of Minister Coveney and especially his ten mega farms plan which we all fear will wipe out our wild Atlantic salmon.

This is a major development that proves our lobby is gaining huge momentum since our first public awareness meeting in May 2012 in Galway. FISSTA were at that time the first federation to oppose this issue and bring it to the attention of the public.

The formation of Galway Bay Against Salmon Cages in January 2013 gave the campaign a further impetus and opposition to the local application in Galway Bay lodged by BIM in the Autumn of 2012. Following a very successful protest rally in March 2013 in which Goldman Environmental Winner Mr Orri Vigfusson from Iceland attended, Minister Coveney delayed his decision until after his EU Presidency. Many pictures of the large numbers on that Galway march made international news around the world at it is evident now that our sustained campaign in the press has succeeded in to date in delaying further the decision to approve or reject the application to Minister Coveney himself as judge, jury and executioner of the state application. In the Spring of 2014, FISSTA became founding members of the Irish Sports Coalition that consisted of the many rod and gun country sports communities from all over the island of Ireland. This impressive group of over 150,000 nature sports members lobbied all 830 candidates contesting the local elections and many supportive county councillors are now elected to assist us in our various angling and shooting issues that need resolution. The priority for angling is to end the ill-conceived BIM plan to locate ten massive 15,000 ton monster fish farms off the west coast of Ireland.

Other issues for FISSTA include development of an agreed all island angling plan that will capitalise and build on the €750m. value that our volunteers in many angling clubs deliver to the Irish economy every season.

**FISSTA OBJECT TO OUR STATE BODIES INTERFERING FURTHER IN OUR SPORT OF ANGLING AND OPPOSE ALL RECENT ATTEMPTS TO IMPOSE WITHOUT CONSULTATION THE FOLLOWING:**

- THE RECENT FISHERY CARD AS PER THE NEW REGULATIONS ON JANUARY 1ST
- A COMPULSORY ANGLING CHARGE
- A REGISTER OF ANGLERS
- A NATIONAL IDENTITY CARD FOR ANGLERS
- THE INTRODUCTION OF PENALTY POINTS
- FAILURE TO GRANT CLUBS SECURE TENURE ON STATE OWNED FISHERIES

At the conclusion of the signing event in Kilmainham, FISSTA Chairman Mr. Paul Lawton stated:

" May I pay tribute to all involved, especially the facilitator and all the signatories from the federations in supporting our anti fish farming campaign to date. I acknowledge the very hard work by all who attended over a series of thirteen meetings to agree the text of this historic document which will be sent to all relevant state bodies and ministers immediately. We will all be lobbying our respective politicians to listen and act promptly to our views and proposals. FISSTA call on all our colleagues to engage intensely with the Government so that a favourable outcome for all is achieved." ENDS.

**NOTES TO EDITOR:** The following three clauses are an extract from the document pertaining to salmon farming and agreed among fellow anglers:

**CLAUSE 28.** To prevent the introduction of disease, provision should be made to prevent the use of non- native smolts in the fish farm industry

**CLAUSE 35.** Serious concerns have been raised by anglers and scientists on the damage being caused to our wild Salmon and Sea trout stocks by sea based fish farming and the Angling Community total oppose sea based fish farming. The Angling Groups request that provision be made to give powers to IFI to inspect and monitor Fish Farms and where breaches of their Licences occur impose stringent penalties. Also a new independent group must be established to issue licences and no Fish farm allowed to operate without such a licence.

**CLAUSE 39.** With salmon stocks in continuing decline and with the clear benefit to the local and the national economy from tourist and Irish salmon anglers, a ban on all commercial salmon netting is now required. The Angling Groups recommend that provision be made in the Act to accommodate such a measure.

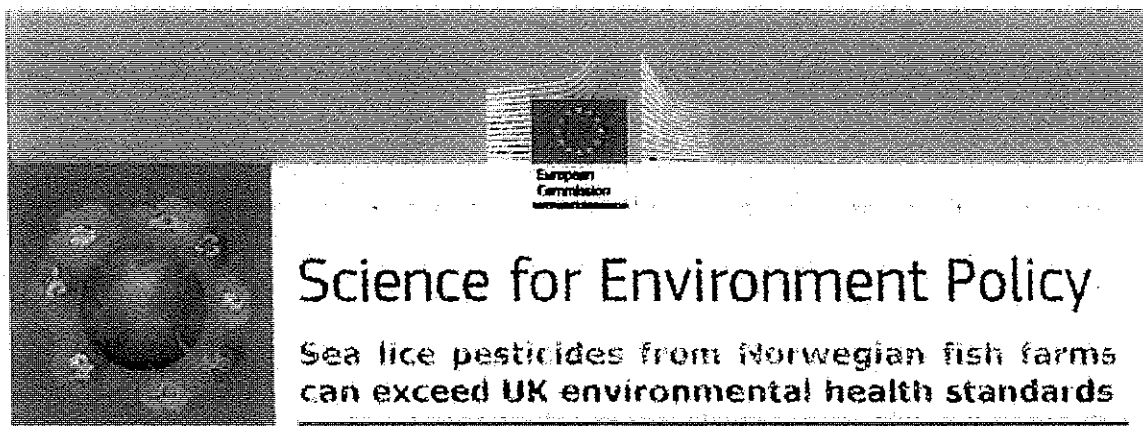
\*The following angling federations signed the historic document on 13th February 2015.

1. FISSTA - Federation of Irish Salmon and Sea-Trout Anglers
2. TAFI - Trout Angling Federation of Ireland
3. IFPAC - Irish Federation of Pike Angling Clubs
4. EFSA - European Federation of Sea Anglers
5. IADA - Irish Angling Development Alliance
6. NCCFI - National Coarse Fishing Federation of Ireland
7. SSTRAI - Salmon and Sea Trout Recreational Anglers of Ireland
8. NARA - National Anglers Representation Association

PRESS RELEASE ENDS

## Appendix 11.

# PESTICIDES DAMAGE TO INSHORE WILD FISHERIES – NORWEGIAN PAPER



## Science for Environment Policy

### Sea lice pesticides from Norwegian fish farms can exceed UK environmental health standards

Levels of aquaculture pesticides exceed UK environmental quality standards (EQSs) in samples taken from near Norwegian fish farms, a recent study has shown. The researchers examined five pesticides used to kill sea lice (*Lepeophtheirus salmonis*) and showed that in many cases their concentrations exceeded UK EQSs. They used UK standards, they explain, because there are currently no Norwegian EQSs for these chemicals, and call for international quality standards to be drawn up.

Sea lice are a major problem in aquaculture, as they can seriously damage or even kill farmed fish such as salmon and cod. To control infestations, managers treat the fish with veterinary pesticides. However, there are concerns these may harm other marine wildlife susceptible to these toxic chemicals.

In this study, the researchers investigated the levels of antiparasitic medicines found in the sea near five salmon or cod fish farms in Norway, one of Europe's leading producers of farmed fish.

The researchers collected sediment and water samples, as well as blue mussels (*Mytilus edulis*), shrimp-like amphipods (*Gammarus locusta*), shrimp (*Pandanus borealis*), brown crab (*Cancer pagurus*) and cod (*Gadus morhua*) from around the five farms. They screened the samples for five antiparasitic compounds: diflubenzuron, teflubenzuron, emamectin benzoate, cypermethrin and deltamethrin, depending on which products the farms had used.

They compared their measurements with UK environmental quality standards (EQS) – thresholds set to protect the environment and human health – as Norway has no EQSs for the five lice treatments.

The results showed that concentrations of diflubenzuron in the water near farms using the pesticide were above the EQS of 5 ng/L (nanograms per litre). The researchers used risk quotients (the actual measured environmental concentration divided by EQS) as an indicator of the risk of adverse environmental effects. In 40% of the water samples, diflubenzuron risk quotients were greater than one, indicating potential risk to non-target marine wildlife.

At a farm using teflubenzuron, concentrations in water samples were above the EQS of 6 ng/L and those in sediment samples were above the EQS of 2 ng/L. The risk quotients for this pesticide were greater than one in 67% of the sediment samples.

Diflubenzuron and teflubenzuron were also detected in crab, shrimp and blue mussels taken from the selected sites. Although the researchers could not determine how this affected the individuals, it does suggest that these pesticides can be taken up by wildlife. This is of particular concern for these creatures, the researchers say, because these chemicals work by interfering with shell formation.

Emamectin benzoate sediment concentrations were higher than the EQS of 0.763 ng/L in half of the samples tested. Levels of this pesticide were below the limits of detection in blue mussel or water samples. Both cypermethrin and deltamethrin were below the limit of detection in all of the samples the researchers analysed.

The researchers highlight the need for international EQSs and say that the lack of monitoring and toxicity data makes it difficult to determine just how much of a risk these pesticides are to the marine environment.

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Source: Langford, K.H., Ørskov, S., Schøyen, M., Thomas, K.V. (2014) Do Antiparasitic Medicines Used in Aquaculture Pose a Risk to the Norwegian Aquatic Environment? *Environmental Science & Technology*. DOI:10.1021/es5005329

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**Appendix 12.**  
**NEW TECHNOLOGY ALTERNATIVES:**  
**NORTH ATLANTIC SALMON FUND**  
**& ATLANTIC SALMON FEDERATION**  
**ENDORSEMENTS – NEW CLOSED CONTAINMENT**  
**TECHNOLOGY ALREADY DEVELOPED IN**  
**CANADA AND NORWAY BY MARINE HARVEST**

<http://asf.ca/bc-s-only-land-based-salmon-farm-on-target.html>

**Atlantic Salmon Federation -**  
**BC's Only Land Based Salmon Farm on Target**

**Vancouver Sun** B.C.'s only land-based salmon farm on target  
By Randy Shore, Vancouver Sun February 16, 2015

VANCOUVER — North America's only land-based Atlantic salmon farm is on track to meet its production cost targets next year, according to the CEO of Kuterra, the business set up to run the project. As technical fixes are implemented and the facility ramps up to full production with each successive group of fish entering the facility, Garry Ullstrom projects a production cost in the neighbourhood of \$7 per kilogram HOG (head on, gutted).

That leaves a tidy profit margin when wholesaler Albion Fisheries pays about \$9 per kilogram for a product the firm markets as premium and sustainable. The \$9.5-million Kuterra facility near Port McNeill was built on Namgis First Nations land with a combination of philanthropic donations and government grants to make an economic case for a land-based salmon farming industry.

Now that the technical issues have been resolved, Ullstrom estimates it would cost about \$6 million to replicate the facility. That's still higher than the capital cost of a net-pen farm, but closed-containment aquaculture answers many of the pressing environmental issues that the ocean-based industry is wrestling with, including Atlantic salmon escapes, chemical controls for sea lice and the spectre of disease transfer to wild fish. And proponents point out that when conditions in the tanks are carefully controlled, fish grow faster with less feed and draw a higher price in the market. Atlantic salmon in closed-containment systems grow to market weight in 12 to 15 months, compared with 21 to 24 months in ocean-based net pens. While the first cohort of 20,000 fish experienced wildly fluctuating conditions as the facility's filtration and heating systems were built around them, costs began to stabilize and drop with successive cohorts, Ullstrom said.

The electricity cost per kilogram of finished salmon is down almost 60 per cent since the first smolts entered the facility in March 2013. "What we saw in the second cohort was much more stable growth and by the fourth cohort growth started to take off as water quality improved," Ullstrom said. "It's all about providing optimal conditions." Determining just what those conditions are will be expedited by the work of Colin Brauner, a professor of zoology at the University of British Columbia. A three-year \$600,000 grant from the Natural Sciences and Engineering Research Council of Canada will allow

Brauner to determine the conditions of day length, temperature and salinity that promote the fastest growth, the best flavour and texture and the optimal feed conversion (how much feed is required to produce a kilogram of finished salmon).

"When you rear fish in the ocean, you get what you get in terms of weather and temperatures the fish experience," said Brauner. "In closed containment you can control those things and tweak the system to get the best product and the best return (on input costs)." Brauner's lab can grow seven separate cohorts simultaneously under a variety of conditions and even change conditions, such as the salinity of the water, as the fish mature. Salmon blood has only one-third the salinity of ocean water so the fish expend energy balancing electrolytes to maintain internal salinity during their time in the ocean and in fresh water, Brauner said. Salmon may grow better and faster under conditions of reduced salinity and then spend the last few weeks before harvest in water closer to ocean-like salinity to ensure the flavour is correct. "We can work directly with Kuterra to resolve their most pressing questions," said Brauner. "Science can be a slow process ... each experiment lasts nearly a year, but we can test several different conditions at once."

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## Cooperation Agreement

### Matorka ehf & North Atlantic Salmon Fund (NASF)

**The North Atlantic Salmon Fund (NASF)** works to conserve and restore stocks of wild Atlantic salmon throughout the migration range of this North Atlantic fish. We support the best scientific methods of assessing the numbers of wild salmon and identifying the problems these fish face. Our aim is to rebuild the stocks to the former state of abundance that supported a profitable and sustainable utilization of wild salmon stocks in their natural habitat.

NASF campaigns against salmon farming in open sea cages. The security of the structures cannot be assured in the climatic conditions they face and damage to the net walls inevitably results in the escape of large numbers of fish that then threaten the genetic integrity of wild salmon. In addition, the cages produce plagues of sea lice that attach themselves to migrating wild smolts from nearby rivers causing serious and demonstrable damage to neighbouring populations of wild salmon and sea trout. The sea farms are also the source of pollution and diseases that cannot be properly controlled. As a sustainable alternative we promote the creation of land-based fish farms that are contained within a closed and secure environment.

We are therefore delighted to learn of the new fish farming project of the **Matorka company** in the vicinity of Keflavik International airport on the Reykjanes peninsula. This fits perfectly in with NASF's long-term objectives of green sustainability. Utilizing the naturally hot ground water in this area makes it possible to produce a high quality food product in all months of the year and to do so without polluting the environment or endangering the wild cousins of the captive fish.

Matorka is a showcase example of the path that the salmon industry should be taking. In recent years NASF has hosted seminars and workshops in order to promote and campaign for safe and sustainable fish farms. Only by farming salmonids sustainably can this industry thrive. This would also guarantee a natural habitat in which the North Atlantic Salmon can thrive.

**Matorka ehf** is a land based aquaculture station which prides itself on growing salmonids in an environmentally friendly and sustainable way. The company has secured hot geothermal water for mass production. With optimal thermal conditions, the unit economics are exceptionally good, and the whole system is designed to limit pollution and avoid disruption to the habitat of the wild salmon. [www.matorka.is](http://www.matorka.is)

**The North Atlantic Salmon Fund, NASF**, is a coalition of voluntary conservation groups that have come together to restore stocks of wild Atlantic salmon to their historic abundance. [www.nasfworldwide.com](http://www.nasfworldwide.com)



**MATORKA HOLDINGS AG | MATORKA EHF**  
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[WWW.MATORKA.IS](http://WWW.MATORKA.IS) Tel: (354) 787 8880

Matorka is a pioneer in producing environmentally friendly and sustainable seafood. Our company utilizes the latest technologies, designed and developed in house, and all our operations are powered by clean, sustainable geothermal energy. The company has its own hatchery with ideal water resources in the south of Iceland.



The company is focused on land based farming of salmonid for world markets, which are high in Omega3 oils, and are in demand worldwide. There are currently well over 2 million tons of farmed salmon/trout produced in the world, but unfortunately most of it comes from cage farming. Cage farming generally relies on chemicals and drugs to keep the fish from illness, death and parasites, whereas the routinely used farming sites have a hard time dealing with the biomass and related pollutants/pathogens in the sea.

Matorka's operations on the other hand are environmentally friendly, from feed to end product. The fish is fed a uniquely sustainable diet, no antibiotics, chemicals or growth hormones are used during the farming process, and the fish has not been genetically modified (GMO). The company's aim is simple - to produce the healthiest fish possible. The company is carbon neutral and aims to lead the aquaculture industry in sustainable practices.

Matorka's main specie, the **Arctic Charr** (a salmonid) is a red-fleshed delicacy, which is well established in gourmet kitchens throughout the world. It has a mild, almost sweet taste, which never fails to impress even the most demanding seafood lover. It is a member of the salmonid family with a very high Omega3 content.

Arctic Charr is a specie which is native to the Arctic and other colder regions of the northern hemisphere. Farming this species is environmentally friendly and sustainable. According to Seafood Watch: "Arctic charr use only a moderate amount of marine resources for feed. In addition, Arctic charr are farmed in land-based, closed systems that minimize the risk of escape into the wild".



Matorka Holdings AG is domiciled in Switzerland, but its production facilities are located in Iceland.



## **Appendix 13.**

### **SUITABILITY OF THE PROCESS – DAIL EXCHANGE O'CUIV VS. COVENEY**

**Extract from Dail Exchange 2013:** "This question relates to the suitability of the process, rather than to the adjudication on the application" said: Deputy Eamon O' Cuiv TD as Minister in 2010 brought in a moratorium on salmon farms citing sealice as the reason for withdrawing funding until such issues were addressed by the salmon farming industry. In 2011, this moratorium policy was withdrawn and the relevant Departments were instructed to ignore the moratorium without any public announcement put on the Dail record or in press release format.

**Extract from Aquaculture Licences Dail question time.**

104. Deputy Éamon Ó Cuív asked the Minister for Agriculture, Food and the Marine Information on Simon Coveney Zoom on Simon Coveney if he considers it appropriate for him to be the decision maker in relation to an aquaculture licence application received from a State agency, Bord Iascaigh Mhara, that operates under the aegis of his Department and which is obligated to operate within the framework of his policy, and in the circumstances in which he has stated his support for the project; if he intends asking Bord Iascaigh Mhara to withdraw the application pending a change in the law to ensure modern practice in relation to the issuing of aquaculture licences; and if he will make a statement on the matter. [15063/13]

Deputy Simon Coveney: An application by Bord Iascaigh Mhara for an aquaculture licence for the cultivation of finfish near Inis Oíir in Galway Bay was received by the Department of Agriculture, Food and the Marine last year. The application and its accompanying environmental impact statement are being considered under the provisions of the Fisheries (Amendment) Act 1997 and the Foreshore Act 1933. The role of the Minister as the decision maker with regard to aquaculture licensing is clearly set out in the legislation. I am entirely satisfied that my role in that regard is not compromised in any way. In my statutory role as decision maker, it would not be appropriate for me to comment further on this application, which is under assessment by the Department in accordance with the statutory process.

Deputy Éamon Ó Cuív: This question relates to the suitability of the process, rather than to the adjudication on the application. Can the Minister confirm the date on which the application was received from Bord Iascaigh Mhara? Would the Minister agree that, both privately and at a very large public meeting of farmers held in Claremorris late last autumn, he clearly indicated his support for this project? Deputy Simon Coveney: No.

Deputy Éamon Ó Cuív: Will the Minister clarify whether it is the policy of his Department to encourage the type of development now engaged in by Bord Iascaigh Mhara, BIM? Would he not agree this clearly compromises the Department's ability to make an objective decision on this application? Would he not also agree it is BIM's obligation to carry out Government policy and, as I have said, ensure that the Government policy is clearly in favour of the project?

Deputy Simon Coveney: I have been a bit surprised by the Deputy's commentary on this issue. I have made it clear on many occasions, long before this application was made to my Department and since, that the issue of deep water aquaculture does provide an exciting potential for stimulus, growth and job creation for our seafood sector, particularly along the west coast. However, I have been very careful, both before and since this application was made, not to specifically support any one project or any one location for an application, because it would not be appropriate to do so. I have received strong advice on that and have adhered to that advice. However, this does not mean that I, as a Minister who is responsible for finding ways to create jobs, particularly in isolated parts of Ireland that do not have many other options or choices, would not look at ways in which we can get more out of our natural resources in a sustainable way. That is entirely different from making an assessment on an

individual application, which I have a legal obligation to do in an independent and balanced way, and which I will do on the basis of scientific advice and of looking at the responses that have come from the public during the public consultation process. It is my job to then weigh up the concerns that have been expressed, the support that has been given and the scientific advice from scientists in the Marine Institute and elsewhere, and to then make a balanced decision. If that decision is being challenged, it then goes to an appeals process through the Aquaculture Licences Appeals Board system, which has been in place for many years. When the Deputy was a Minister, he would have understood how it worked. He should also understand that when an application is under consideration by the Department, it is not appropriate for the Minister to talk about the specifics of the application concerned.

Deputy Éamon Ó Cuív: That is why I was surprised to hear the Minister made specific comment on aquaculture in Galway Bay at a large meeting of farmers in Claremorris held late last autumn. Would he not agree that if he grants the licence now, in view of the circumstances that have arisen, it is likely to be subject to legal challenge? Would he not agree that it would be much more satisfactory for BIM to withdraw the application and for the law to be changed to put the issue of licences at arm's length from the Minister, which now happens in most cases? For example, with regard to oil permits and the like, which used to be subject to ministerial consents, during the term of the previous Government they were all moved to an arm's length position from the Minister, so the Minister did not become a judge in his own court in regard to applications. Would he not consider this a much more satisfactory process that would engender much more public confidence? The Minister must note, for example, that Galway County Council last night passed a resolution opposing the proposal as it stands, and, therefore, we need public confidence in the process. Would he not agree it would be much better to introduce legislation transferring this function of granting or not granting the licence to either the EPA or An Bord Pleanála, so the Minister could be actively involved in policy formulation and policy promotion, and where somebody independent would look at the specific proposals and give an independent judgment on that? Deputy Éamon Ó Cuív: Would the Minister agree that unless he does that, this will all be open to a legal challenge that would be likely to succeed?

Deputy Simon Coveney: No, I do not agree with the Deputy. He seems to be the one trying to stoke this up in terms of challenging its appropriateness. He was the first person to raise this matter. Nobody else raised it with me. It is not the case that everybody else has been calling for this and the Deputy is speaking for them. He seems to be the one trying to make a political football out of this. That is a decision for the Deputy to make.

Deputy Simon Coveney: My job is to get on with what I am legally obliged to do which is to give due consideration in a robust but fair way to an application for a significant piece of infrastructure in water and I will do that. I will accept all of the advice I am supposed to get in that process and then make an independent and informed decision using my judgment as best I can. That is my responsibility. If people do not agree with that procedure or decision, they will have an opportunity to appeal it to the Aquaculture Licences Appeals Board, ALAB, which is just as independent as An Bord Pleanála. Deputy Ó Cuív seems to be suggesting that we should hand this over to An Bord Pleanála. ALAB is the equivalent of An Bord Pleanála for licensing of aquaculture projects so I am not sure what the Deputy is getting at.

Ends.

## **Appendix 14.**

# **ICELANDIC SALMON CONSERVATION GROUPS BRINGS CASE AGAINST STATE FEB 15**

**LEGAL CASE BEING TAKEN AGAINST ICELANDIC GOVERNMENT LICENSES AND  
THEIR FAILURE TO PROTECT THEIR WILD SALMON RESOURCE**

### **Iceland February 28<sup>th</sup> 2015 Meeting on Aquaculture in Eyjafjörður**

Saturday February 28<sup>th</sup> meeting was held at Hotel KEA Akureyri to discuss their impending legal challenge against the Icelandic government for failing to protect the invaluable state salmon and shellfish resource that are under threat from the recently approved Marine cages of Norwegian salmon in Eyjafjörður. The meeting was convened by NASF, Protection Fund wild salmon stocks, fishing rights owners, angling clubs and boat fishermen living from fishing in the fjord. Keynote speakers at the meeting were Orri Vigfusson, chairman NASF and Jón Helgi Björnsson chairman hunting salmon Aðaldal.

Rakin outlined the salmon farming history and how it has universally contaminated the marine environment. Marine cage farms is probably the only food production in the world that do not have to clean up after themselves and can forget about all polluting waste released into the environment for it to impact on wild salmonid and shellfish stocks. Organisations in angling and fishery owners have great concern and worries that the tides will carry waste, sewage, residues and oil from fish farming to surrounding clean waters. In particular, the ecosystem of the coastline will be put at risk from chemical treatments which can prove fatal for juveniles in surrounding rivers. Norway has set out with the negative effects particularly on salmon. We do not need to dwell on the enormous damage our wild Atlantic have suffered not to mention the negative impact on the image of food production and tourism. At the meeting it was stated that in Alaska, a competitor of Iceland seafood has all salmon in the sea has been banned. The ban is primarily intended to protect the reputation of Alaska people who hunt and acting wild fish for the international market. It was recalled that in 1988 the representatives of aquaculture, fishing and the Government not to allow Norwegian or any other foreign salmon population to be placed in sea cages in Iceland. This law was later relaxed by Guðni Ágústsson.

Jón Helgi Björnsson traced the enormous lice epidemic which followed from the entire Marine cage farms and it was now considered that we should pursue those responsible for the losses on a large scale. Such an epidemic would immediately cause a lot of havoc in the north of the island because many of the most renowned glaciers are sliding into the sea fjord. It would be very short season on salmon rivers such as Fnjóská, Mýrarkvísl and river Laxá who have enjoyed special protection by law. Jón Helgi said Veðifélag Laxa had sent a clear message to convey to the relevant minister to preserve our wild fish should all Eyjafjörð cause infectious salmon anemia and pollution of river Laxá. In the long term, most people dread mixing varieties of farmed fish to wild fish stocks as such mixing causes irreversible damage such as research from scientist Ellidaar confirmed.

Orri said he advocated taking a legal case and to test the laws which Parliament passed last spring. The Act provides that stringent rules be set under Norwegian standards, establish an approved monitoring process and make perfect measurements of bearing capacity fjords where fish is planned, as well as reviewing comprehensively such fish farming practices before the end of the year. Orri believed that all these items were still relevant and noted that Norway would start the application path by the applicant by investing kr. 200 million non-refundable contribution to make public to their preparation and independent expert research. No Icelandic institutions were equipped to undertake this work. They have neither the facilities, manpower or resources to perform the job adequately.

The boat fishermen at the meeting showed a strong opposition to the fish farming proposals. They pointed out that there were still many and dangerous residues, useless equipment, tools and debris drifting across Eyjafjörður originating from aquaculture unsuccessful attempts in previous years, all the troubles and some of this debris was caught in the propellers of boats and created a risk for seafarers. At the meeting, there was much discussion about Iceland's experience of the fish in the sea, profitability and corporate tax being applied. Orri stated that they were preparing reports on the profitability of the sector on the one hand and the tax to the community. Research has found that many companies in the industry had experienced bankruptcy associated with tens of billions of kroners lost to society. Investigation of tax payments in recent years also appeared to suggest that 48 fish farms in this country do not pay any taxes as known in the last half decade and NASF is constantly asked to ensure that all aquaculture takes place in a closed contained site on land or in a securely enclosed marine pens. Attendees expressed strong support for such land stations for aquaculture so that disease and pollution can be properly controlled. Regarding the continuation of the case, please contact [erlendursteinar@gmail.com](mailto:erlendursteinar@gmail.com)

See attached picture from the meeting of activists against state salmon licensees in Akureyri



## **FISSTA acknowledge support for public awareness programme**

### **FISSTA GET SUPPORT FROM SALMON CLUBS TO STEP UP CAMPAIGN AGAINST TEN NEW FISH FARMS**

To date Minister Coveney has failed to announce the sanction or the scrapping of the BIM ten mega fish farms plan first announced in 2011. Our campaign titled "IRELAND AGAINST SALMON CAGES" continues to gain momentum while the FISSTA founded local pressure group called Galway Bay Against Salmon Cages have done Trojan work winning the hearts and minds of both politicians and the general public. The intense pace of our sustained campaign over the past three and a half years consisting of five major protest marches in Carrigaline, (Minister Coveney's office), Castlebar (Taoiseach's office), Dublin (BIM Aviva Conference), Shelbourne Hotel (Good Food Irl awards). By far the most successful with over 2,500 – 3,000 turning out on the day took place in Galway city in March 2013. Our true and loyal friend to the wild Atlantic salmon, Mr. Orri Vigfusson was the keynote speaker who sent out a very strong message which headlined in the international press. Last July 2014, a new ministerial duo were appointed but to date we see no change of policy or attitude. Inland Fisheries Ireland appear to be still gagged to publicly opposing this EIS and application while BIM seem to continue to steal a march by winning the state body vs state body debate. We have held meetings with An Taoiseach, Minister Simon Coveney TD, ministers, public representatives and several key civil servants in our campaign to stop sealiced fish farms infesting our migrating smolts. Under Freedom of Information answers we now know so too are the salmon farming industry and global companies such as Marine Harvest who we are certain are very active seeking new licenses starting with small tonnage applications and probably hoping to be awarded the first of many mega 15,000 ton licenses that will comprise of over 70 cages near Inis Oirr in Galway Bay. FISSTA seek help with our Plan A, B, and C to save our wild Atlantic salmon and seatrout.

The national press and in particular the Irish Times Monday Angling Column and the Irish Country Sports and Country Life magazine have consistently highlighted the sealice issue as anglers have relayed the developing story week by week. We are thankful for this publicity and the provincial press and Galway's in particular have raised the awareness of this oncoming threat to our wild salmonid fisheries. A good example is the following piece by Derek Evans prompted by Billy Smyth of Galway Bay Against Salmon Cages who released the press release about a fortnight before 250,000 medium sized farmed salmon escaped in Bantry Bay area after the February 4th 2014 storm. With no regulations similar to what is in place in Norway, the damage to the wild fisheries went unpunished and to add insult to injury the state services and Minister Simon Coveney TD gagged the authorities from releasing any pertinent information that might help launch a recovery action plan to protect the spawning grounds from severe damage that such foreign farmed fish will do the very sensitive salmonid habitat.

**Extract from Angling Notes by Derek Evans First published: Mon, Jan 20, 2014, 00:00**

GALWAY Bay Against Salmon Cages (Gbasc) pose an intriguing scenario following the recent storms as tsunami-like waves reached heights of 12m in Galway Bay causing severe damage to businesses, homes and amenities. The group say that if the proposed giant salmon farm was in place during the storms, it would have been completely destroyed. This, in turn, would have resulted in an environmental disaster with millions of farmed salmon either washed up dead or escaping into the wild and destroying the wild salmon gene pool. According to Gbasc, this begs the question: "As the Government would own the licence for the proposed salmon farm would it [the Government] also be the insurer of the proposed salmon farm?" If so, it would be the taxpayer who will have to foot the bill should the salmon farm be destroyed in future storms, they say. Such storms are becoming more frequent, Gbasc says and calls on the Minister, Simon Coveney, not to grant a licence for the proposed salmon farm and stop an environmental disaster from happening in Galway Bay.

<http://www.irishtimes.com/news/health/warning-over-proposed-salmon-farm-in-the-aftermath-of-storm-damage-on-galway-bay-1.1658976>

## Appendix 15.

# MARINE INSTITUTE RECOMMENDED MAP OF 46 POTENTIAL OFFSHORE SITES FOR SALMON FARM PRODUCTION AS INCLUDED IN EIS GALWAY BAY 2012

### 1.4.2 National Scale Analysis

In 2006, the Applicant and The Marine Institute of Ireland commissioned a report called 'Next Steps Offshore Aquaculture Development in Ireland'. In this report 46 sites were identified as having potential for offshore salmon aquaculture. Of these initial 46, four sites were identified as having the best potential. These 'top four' sites are listed below in no particular order (MI, 2006).

- ◊ North East of Gola Island off Donegal
- ◊ East of Inis Turk off Mayo
- ◊ North East of Skerid Rocks in South Connemara
- ◊ North East of Inis Oírr in Galway Bay

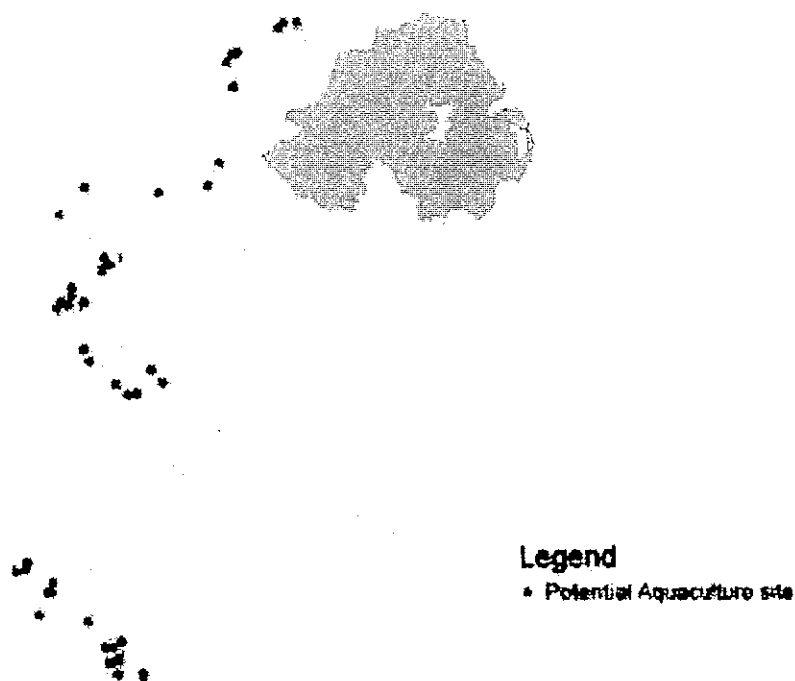


Figure 1.4 46 potential offshore aquaculture sites as identified in the 'Next Steps' report. (Source: MI, 2006)



Figure 1.5 'Top 4' sites as identified in the 'Next Steps' report (Source: MI, 2006)

## **Appendix 16.**

# **IRISH TIMES REPORT – FISH FARM FINED FOR DAMAGE TO SALMONID RIVER**

**Subject: The Irish Times: Derek Evans Angling Column**

Clifden conviction: At a recent sitting of Clifden District Court, Judge Mary Fahy convicted a fish-farm company for damage caused to the bed of a river in Co Galway.

The company had built a dam across the Bunowen River, which flows into Killary Harbour, in order to pump freshwater to an offshore fish-farm cage. Significant damage was caused to the river – a spawning and nursery habitat – and the dam impeded the passage of fish.

Judge Fahy said protection of fish habitat was very important, but acknowledged that the company had been co-operative and removed the dam.

She fined the company €500, with €500 costs.

Monday, 2nd March 2015

## **Fish Farming Company Fined for Damage to Salmonid River**

At a sitting of Clifden District Court on Thursday, 26th of February, Judge Mary Fahy convicted a fish farm company under Section 173 of the Fisheries Act, 1959, for damage caused to the bed of a river in Co. Galway.

Mannin Bay Salmon Company was before the court, arising from an incident which occurred in July 2014. The court heard that Fisheries Officers had found the company had constructed a dam across the Bunowen River, which flows into Killary Harbour, in order to pump freshwater to a fish farm cage located offshore. Significant damage was caused to the bed of the river, which is a spawning and nursery habitat, and the dam was impeding the passage of fish.

The company pleaded guilty to the charge, and the solicitor for the defence, Mr Thomas Mannion, pleaded that the company had experienced an emergency situation whereby an outbreak of Amoebic Gill Disease threatened the stock of fish on the fish farm. Amoebic Gill Disease can be treated by bathing fish in freshwater for a number of hours. The defence acknowledged that the company knew it should not have dammed the river, but did so in order to avoid significant financial losses.

Convicting the company, Judge Fahy commented that protection of fish habitat was very important, but acknowledged that the company had been co-operative and had removed the dam and rectified the situation immediately once Fisheries Officers became aware of it. She fined the company €500, with €500 costs.

Inland Fisheries Ireland (IFI) has a confidential hotline number to enable members of the general public to report incidents - 1890 34 74 24 or 1890 FISH 24. This phone line is designed to encourage the reporting of incidents of illegal fishing, water pollution and invasive species.

For more information, visit [www.fisheriesireland.ie](http://www.fisheriesireland.ie).  
<http://www.fisheriesireland.ie/Press-releases/fish-farming-company-fined-for-damage-to-salmonid-river.html>

**ENDS**

# Appendix 17. FISSTA PUBLICATIONS AGAINST OPEN CAGE SALMON FARMING



*Federation of Irish Salmon  
& Sea Trout Anglers*

Consolidating the Slieve Donard Branches into a Single Entity

Website: [www.fissta.com](http://www.fissta.com)



**F.I.S.S.T.A.**

**AGM 2012**  
SPECIAL EDITION

## AGM Agenda

Sunday 11th November 2012

GALWAY BAY HOTEL,  
SALTHILL, GALWAY CITY

11.00am - 11.10am  
REGISTER OF MEMBERS

11.10am - 11.25am  
PRESIDENT'S WELCOME

11.25am - 11.30am  
MINUTES OF LAST AGM  
(read, propose and adopt)

11.30am - 11.45am  
MATTERS ARISING

12.00pm - 12.10pm  
SECRETARY'S REPORT

12.15pm - 12.25pm  
TREASURER'S REPORT

12.20pm - 12.30pm  
PUB PRESENTATION

12.30pm - 12.45pm  
CHAIRMAN'S ADDRESS

12.45pm - 1.20pm  
ELECTION OF OFFICERS & DELEGATES

1.20pm - 2.15pm  
MOTIONS & DEBATE

2.15pm - 2.30pm  
ANY OTHER BUSINESS

2.30pm  
CLOSE MEETING & VACATE THE HALL

## FISSTA AGM 2012

### CHAIRMAN'S ADDRESS by Paul Lawton

Please accept our good wishes and kind thanks to all delegates attending our AGM in Galway today.

It is now 12 months since I was elected Chairman and at that time we were hopeful that we could see some small improvements to the stocks of our wild Atlantic salmon and sea trout. Sadly, our main objective in the return to abundance of the wild stocks is still very far off.

However, we must strive to attain that abundance of salmon and none of us must be complacent in expecting nature alone to deliver this goal.

There are many challenges for the Inland Fisheries sector and perhaps we expect and depend on our state authorities to protect, manage and conserve our sensitive stocks but our members pay the most expensive state license in the world so that our fisheries are protected and resourced properly.

After a season of very poor patrol and policing activity I am saddened to report that we got very poor value for our money.

Last year at our AGM Minister Pat Rabbitte TD stated "I know we share common interests for the future of the Inland Fisheries Sector and I hope the new structures now firmly



Mr Paul Lawton, Chairman, FISSTA

in place under the direction of the Inland Fisheries Board will herald a new era for us all to prosper.

I appreciate the key role FISSTA play in advising the Board of IFI and the newly formed National Inland Fisheries Forum from which we all depend on to deliver an improved angling product." Sadly, NIFF nor any other body have not improved the angling or fish stocks and today is your opportunity to discuss why we will not tolerate another year of inaction. We face the greatest threat to our wild fish with the new plan from Minister Coveney to increase tenfold the farmed fish cage production starting with the Galway Bay application already underway.

We look forward to a productive AGM and enjoy the fly fair as well.

Non-Governmental Organisation of NASCO - North Atlantic Salmon Conservation Organisation  
Funder Members: NASF - North Atlantic Salmon Fund; EAA - European Anglers Alliance; SOS - Save Our Sea Trout;  
Core to Members - Stop Salmon Dumping Now Campaign; Salmonid Sanctuary Programme [www.fissta.com](http://www.fissta.com)

"Committed to Conservation"



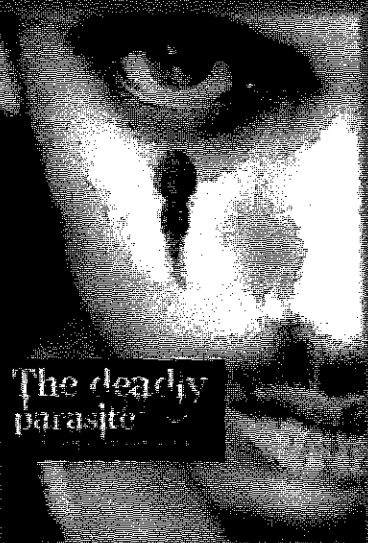
# *Federation of Irish Salmon & Sea Trout Anglers*

Conaidhm na Slar Iascairí Bradán agus Bream Geal

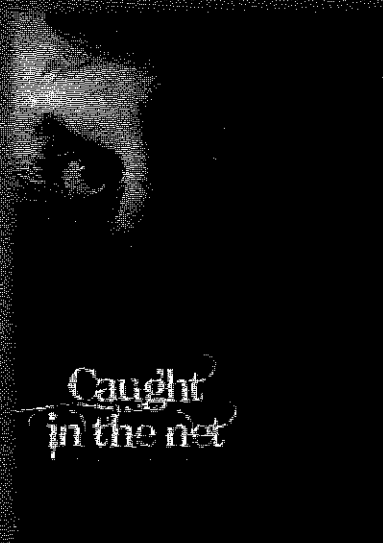
FISSSTA [www.fissa.com](http://www.fissa.com)



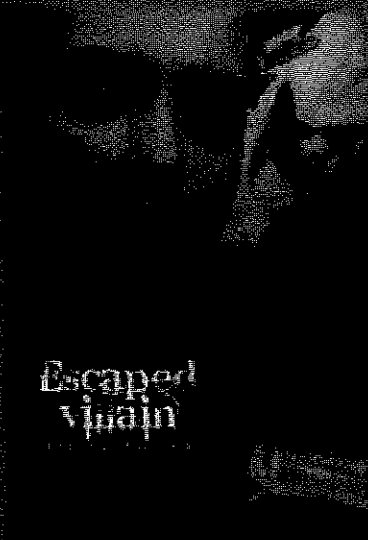
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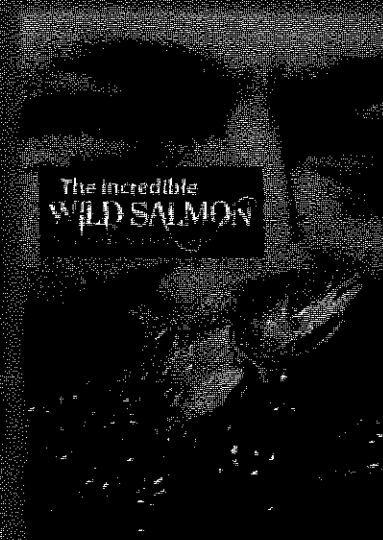
*The deadly  
parasite*



*Caught  
in the net*



*Escaped  
villain*



*The incredible  
WILD SALMON*

**INFORMATION ON SALMON AND  
SEATROUT CONSERVATION**

# The Atlantic Salmon's Dangerous World

NASF's latest depiction of the world of the Atlantic salmon shows the safe areas for salmon where the fish are protected by agreements with commercial fishermen. Unfortunately, there are also red spots on the map. These show the areas where mixed-stock fisheries continue to endanger wild salmon.

There is also a shaded area. This indicates the large segment of the ocean where industrial fishing takes place. These fisheries, operating principally in the North Sea and the NE Atlantic, harvest very large quantities of sand eels and capelin to be made into feed for fish farms and livestock. They also sometimes target mackerel and herring. Many fear these vessels remove much of the baby sand eel and capelin stocks on which juvenile salmon depend and that the fishery also results in a by-catch of adult and juvenile salmon.

Meanwhile, the salmon farming industry continues to spread its disease and sea lice to wild salmon stocks. Large-scale escapes of domesticated farm salmon bred for a life in captivity continue to threaten the genetic makeup of wild stocks that have evolved to make migrations that may take them thousands of miles.

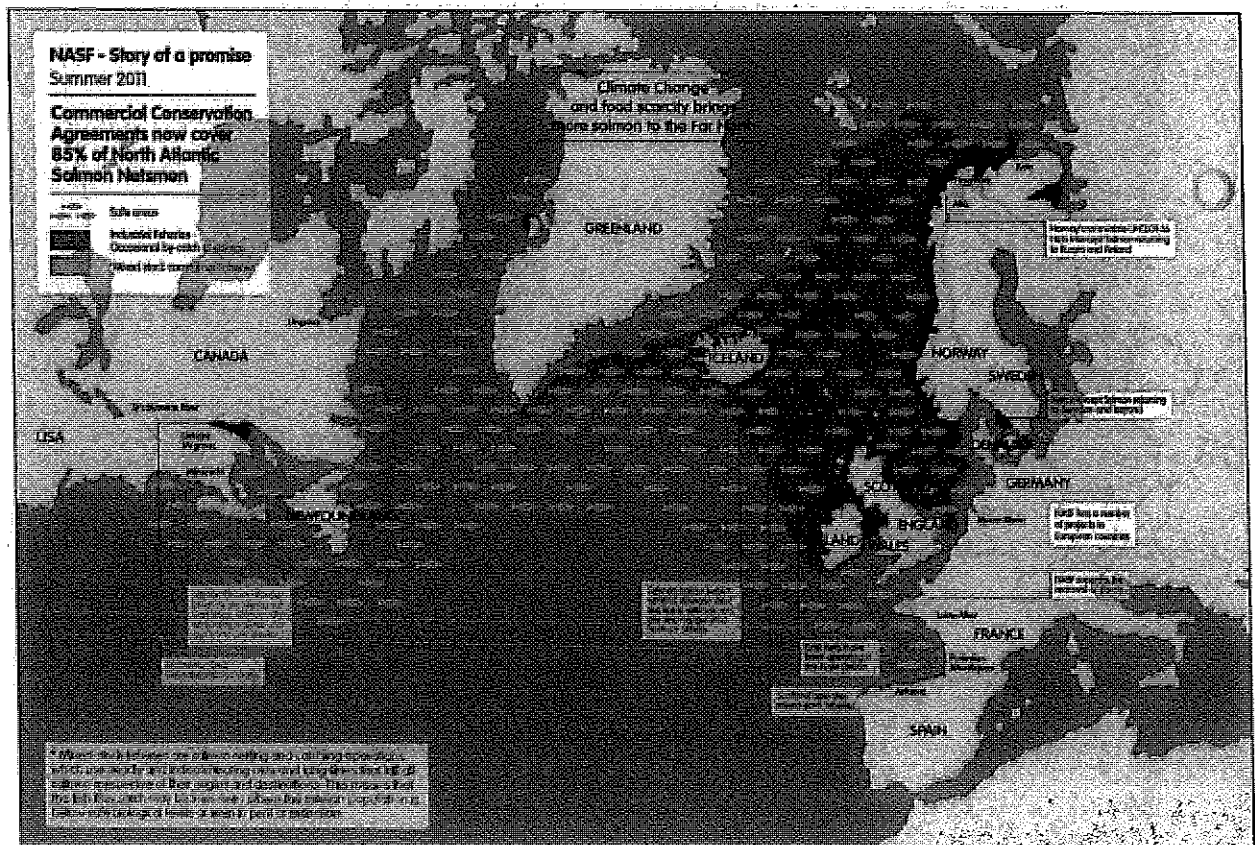
In many regions of Norway, the west coast of Scotland and in Ireland and Canada the damage inflicted by the negative effects of salmon farms has ruined many wild salmon rivers. A destructive combination of commercial over-fishing and a huge fish farming industry riding roughshod over conservation efforts have made Norway the North Atlantic's most dangerous place for wild salmon.

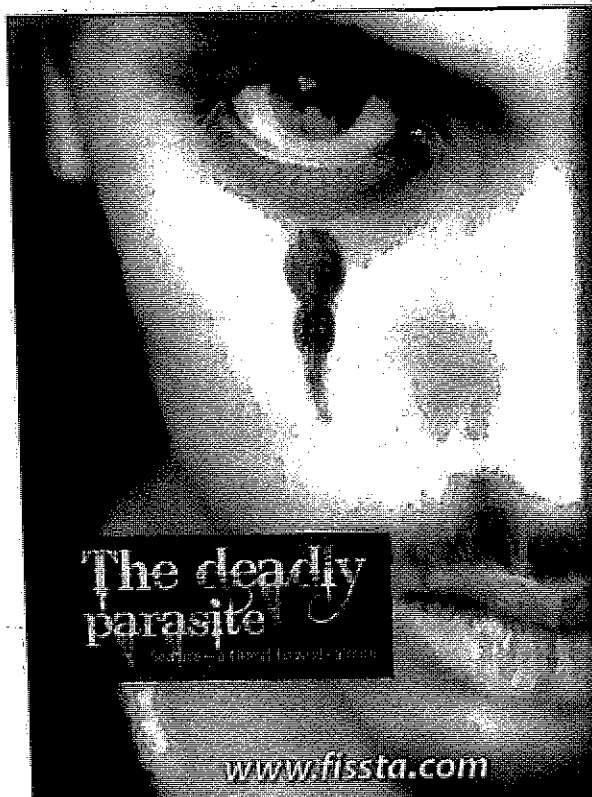
Both these industries enjoy the strong backing of the Norwegian government and sadly the Norwegians are able to spread the damaging effects of their fish farms around the globe. In Scotland, Norwegian operators use attractive 'Scottish' names to promote and market their products — but consumers should not be fooled. The juvenile stock is imported from Norway, there is a high number of foreign staff, the ownership of the farms is Norwegian and their financial operations depend on Norwegian and Ukrainian banks.

The North Atlantic Salmon Fund, NASF, is an international coalition of voluntary private sector conservation groups who have come together to restore stocks of wild Atlantic salmon to their historic abundance. —

[nasf@vortex.is](mailto:nasf@vortex.is)

[www.nasfworldwide.com](http://www.nasfworldwide.com)





**The deadly parasite**  
Sea lice – a threat to wild salmon

[www.fissta.com](http://www.fissta.com)

# The deadly parasite from fish farms

## Sea lice – a threat to the recovery of Ireland's wild salmon

### New action and increased effort against sea lice

The threat against wild salmon has increased in the last few years. With wild salmon stocks at a low level, the recovery of Ireland's wild salmon is at risk. Sea lice, a parasite from fish farms, is a major threat to the recovery of wild salmon.

The Government has taken action to reduce the threat of sea lice. The Department of Agriculture, Food and the Marine has introduced measures to reduce the risk of sea lice to wild salmon. These measures include the use of sea lice treatments and the use of sea lice resistant fish.

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**Federation of Irish Salmon & Sea Trout Anglers**

**Support this campaign with a donation now.**

[www.fissta.com](http://www.fissta.com)

## Sea lice from fish farms – lethal to wild salmon and sea trout

Wild salmon and sea trout are being killed by sea lice from fish farms. Sea lice are a parasite that can cause the death of wild salmon and sea trout. Sea lice are a major threat to the recovery of wild salmon and sea trout.

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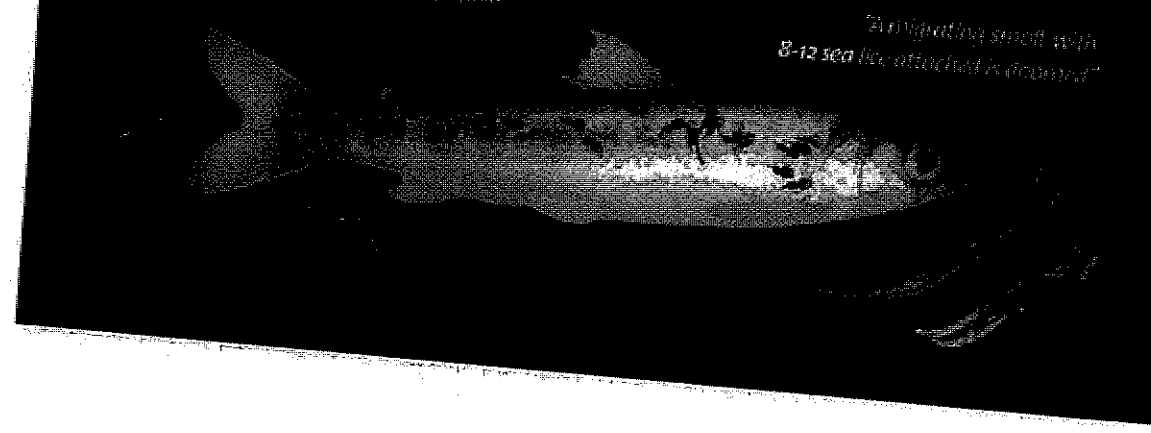
## Resistant sea lice threaten wild salmon

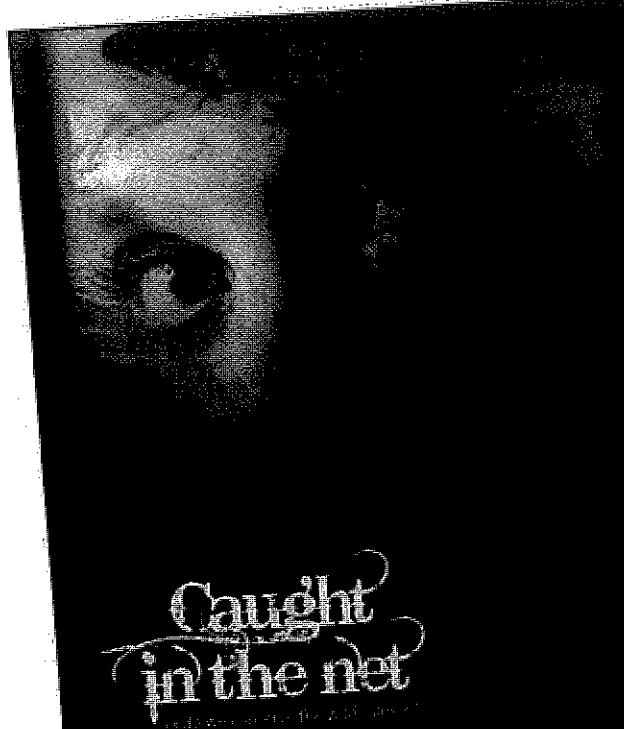
Resistant sea lice are a major threat to the recovery of wild salmon. Resistant sea lice are a parasite that can cause the death of wild salmon. Resistant sea lice are a major threat to the recovery of wild salmon.

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## Sea lice

"A migrating smolt with 8-12 sea lice attached is doomed"





# Wild Atlantic Salmon

**Caught in the Irish Draftnet...**

**Ireland must end all commercial netting of wild salmon until stocks recover to abundance.**

**Prudence conserves the wild salmon**

It should be a basic principle that any harvest of salmon in Ireland should be sustainable. Currently, only salmon taking place in the draftnet stocks and there can only be a steady state if the harvest is sustainable. Commercial draftnet fishing has been a constant drain on the stocks and is not sustainable. The draftnet stocks are not sustainable and the draftnet stocks are not sustainable.

The Fisheries of Irish Salmon and Sea Trout and the Fisheries of Salmon and Sea Trout in Ireland should be managed in a sustainable manner.

Minimum sustainable yield (MSY) of commercial salmon stocks should be maintained.

The harvest of wild salmon should be managed in a sustainable manner and the draftnet stocks should be maintained.

As a condition of any draftnet fishing, the draftnet stocks should be maintained and the draftnet stocks should be maintained.

As a condition of any draftnet fishing, the draftnet stocks should be maintained and the draftnet stocks should be maintained.

**Caught in the net**  
A campaign to end the wild salmon draftnet

[www.fissta.com](http://www.fissta.com)

**Federation of Irish Salmon & Sea Trout Anglers**  
FISSTA  
10, Newmarket Road, Dublin 15, Ireland

**Support this campaign with a donation now.**

Bank of Ireland, 10, Newmarket Road, Dublin 15, Ireland  
01-454 4444, 01-454 4444, 01-454 4444

## To each river its own salmon stock

Ireland has around 300 rivers and streams, each with its own salmon stock. Each river has its own salmon stock and each river has its own salmon stock.

Each river has its own salmon stock and each river has its own salmon stock. Each river has its own salmon stock and each river has its own salmon stock.

## We need accurate regulation

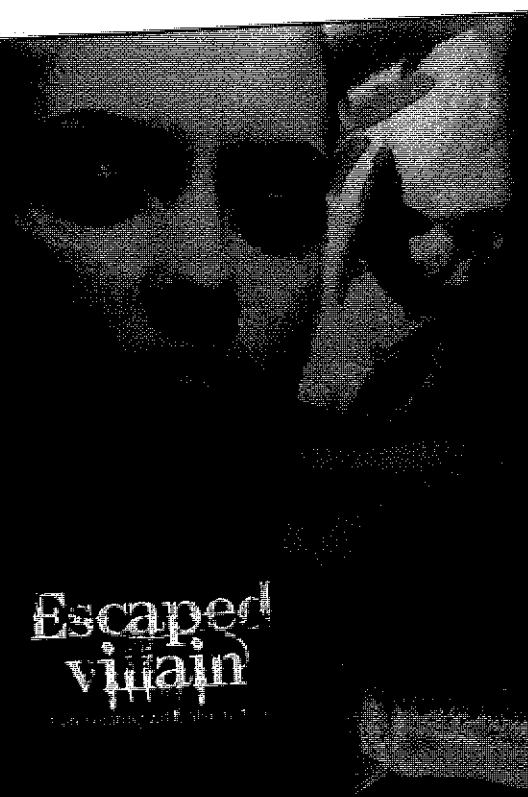
Regulating and managing salmon stocks is a complex task. It requires accurate regulation and management of the stocks.

Salmon stocks are a complex task. It requires accurate regulation and management of the stocks. Salmon stocks are a complex task.

Each river has its own salmon stock and each river has its own salmon stock. Each river has its own salmon stock and each river has its own salmon stock.

Each river has its own salmon stock and each river has its own salmon stock. Each river has its own salmon stock and each river has its own salmon stock.

**Salmon draft-netting does not show consideration to the most vulnerable stocks**



## Escaped villain

Escaped farmed salmon are a threat to wild stocks

[www.fissta.com](http://www.fissta.com)

## Escaped villains from fish farms

### Deteriorating wild salmon stocks

### New activities and efforts to eliminate escapes of farmed salmon

Escapes of farmed salmon, which have at times posed serious risks to the genetic diversity of wild salmon, are being tackled through new activities and efforts to eliminate escapes of farmed salmon.

In the past, escapes of farmed salmon have been a problem for wild salmon stocks, but new activities and efforts to eliminate escapes of farmed salmon are being undertaken.

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Support this

**Federation of Fish Salmon & Sea Trout Anglers**

www.fissta.com

**Support this campaign with a donation now.**

With this support, the Federation of Fish Salmon & Sea Trout Anglers will be able to continue its work to protect wild salmon stocks.

## Farmed salmon are not part of nature!

Escapes of farmed salmon are a threat to wild stocks, but new activities and efforts to eliminate escapes of farmed salmon are being undertaken.

### Genetic garbage

Escapes of farmed salmon are a threat to wild stocks, but new activities and efforts to eliminate escapes of farmed salmon are being undertaken.

### Disinfection routines

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### Help us to prevent spreading of Gyrodactylus Salaris!

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## Escaped although not convicted

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Today's escape levels cause genetic garbage of the wild salmon stocks

## The incredible WILD SALMON

Ireland's silvery inheritance

## The incredible Wild Salmon

Ireland's silvery inheritance!

### The wild salmon meet numerous challenges

- The decline of wild salmon stocks in Ireland and throughout Europe during the 1980s Atlantic salmon has been a major focus of the Irish government. However, it is still not clear whether the salmon is a threatened species or not. The Irish government has set up a number of bodies to investigate the situation and to develop a strategy to ensure the sustainability of the wild salmon fishery. The Wild Salmon Task Force was set up in 1990 and has since produced a number of reports. The most recent report, 'Wild Salmon: A Strategy for the Future', was published in 1995. It sets out a number of challenges that the wild salmon fishery faces and proposes a number of measures to address them. These include:
  - 1. The need to improve the quality of the water in the rivers and streams where the salmon spawn.
  - 2. The need to improve the quality of the habitat in the rivers and streams where the salmon spawn.
  - 3. The need to improve the quality of the fishery management.
  - 4. The need to improve the quality of the marketing of the wild salmon.
  - 5. The need to improve the quality of the research and monitoring of the wild salmon fishery.

Wild Salmon Task Force  
Federation of Irish Salmon & Sea Trout Anglers  
www.fissta.com

Support this campaign with a donation now.

Wild Salmon Task Force  
Federation of Irish Salmon & Sea Trout Anglers  
www.fissta.com

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## The silver-covered nomadic king of fish

For the wild, silver-covered king of fish, the world is a nomadic kingdom. The silver-covered king of fish is the Atlantic salmon, *Salmo salar*. It is a highly migratory species, spending much of its life in the sea and returning to its natal river to spawn.

The salmon has a long history in Ireland, with evidence of its presence dating back to the Neolithic period. It was a major source of food for the early Irish people and was also used for medicinal purposes. The salmon was also a popular subject of art and literature in Ireland.

Salmon fishing was a popular sport in Ireland for many years. It was a highly skilled and dangerous activity, requiring a deep knowledge of the river and the fish. The salmon was also a popular subject of art and literature in Ireland.

The silver-covered king of fish is a highly migratory species, spending much of its life in the sea and returning to its natal river to spawn. It is a highly skilled and dangerous activity, requiring a deep knowledge of the river and the fish.

A study of the silver-covered king of fish has revealed that it is a highly migratory species, spending much of its life in the sea and returning to its natal river to spawn. It is a highly skilled and dangerous activity, requiring a deep knowledge of the river and the fish.

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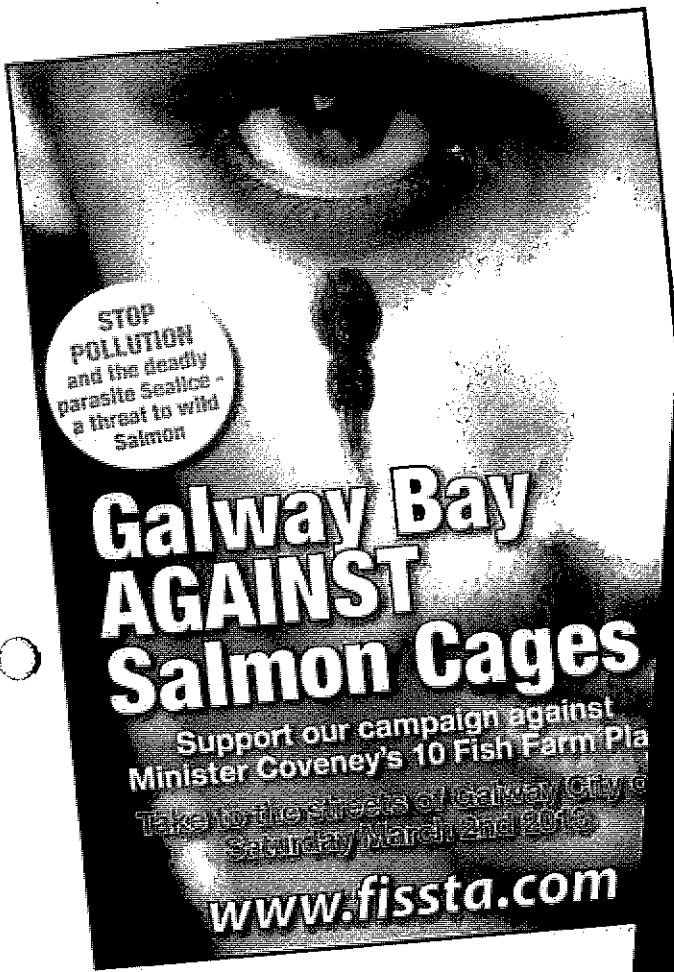
The silver-covered king of fish is a highly migratory species, spending much of its life in the sea and returning to its natal river to spawn. It is a highly skilled and dangerous activity, requiring a deep knowledge of the river and the fish.

Fishing for salmon is a popular sport in Ireland. It is a highly skilled and dangerous activity, requiring a deep knowledge of the river and the fish. The salmon was also a popular subject of art and literature in Ireland.

The silver-covered king of fish is a highly migratory species, spending much of its life in the sea and returning to its natal river to spawn. It is a highly skilled and dangerous activity, requiring a deep knowledge of the river and the fish.

*Salmo Salar* is the Latin name for the Atlantic salmon. *Salmo* means salmon and *Salar* means the springer.

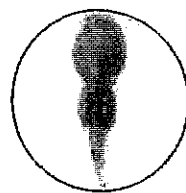




**STOP POLLUTION and the deadly parasite Sealice - a threat to wild Salmon**

# Galway Bay AGAINST Salmon Cages

Support our campaign against Minister Coveney's 10 Fish Farm Plan  
Take to the streets of Galway City on Saturday March 2nd 2013  
[www.fissta.com](http://www.fissta.com)



# The deadly parasite

Sealice - a threat to wild salmon

# Galway Bay AGAINST Salmon Cages

Support our campaign against Minister Coveney's 10 Fish Farm Plan  
Take to the streets of Galway City on Saturday March 2nd 2013

The plan will decimate not just our stocks of wild salmon and sea trout but also the communities that have established angling and tourism jobs that depend on a clean marine environment to sustain their very existence.

[www.fissta.com](http://www.fissta.com)

# The deadly parasite

Sealice - a threat to wild salmon

# Stop the Toxic 10 Fish Farm Plan

In 2006, BIM and The Marine Institute of Ireland commissioned a report called 'Next Steps Offshore Aquaculture Development in Ireland'. In this report 48 sites were identified as having potential for offshore salmon aquaculture. Of these initial 48, four sites were identified as having the best potential. These 'top four' sites are listed below in no particular order.

- North East of Inis Olm in Galway Bay
- East of Inis Turk off Mayo
- North East of Skerck Rocks in South Connemara
- North East of Gola Island off Donegal

**STOP POLLUTION and the deadly parasite Sealice - a threat to wild Salmon**

Legend  
• Offshore Aquaculture Site

The 48 potential offshore aquaculture sites as identified in the 'Next Steps' report. (Source: BIM, 2006)

[www.fissta.com](http://www.fissta.com)



**Appendix 18.**  
**LINK TO WEBSITE TO ACCESS**  
**FISSTA OBJECTION TO BIM APPLICATION**  
**& 1,200 PAGE EIS - DECEMBER 2012**

**LODGED AND OBJECTED TO ON DECEMBER 2012 WHICH HAS NOT YET BEEN RESPONDED**  
**TO BY DEPARTMENT OF AGRICULTURE, FOOD AND MARINE.**  
**CLICK ON [www.fissta.com/eisobjection](http://www.fissta.com/eisobjection)**

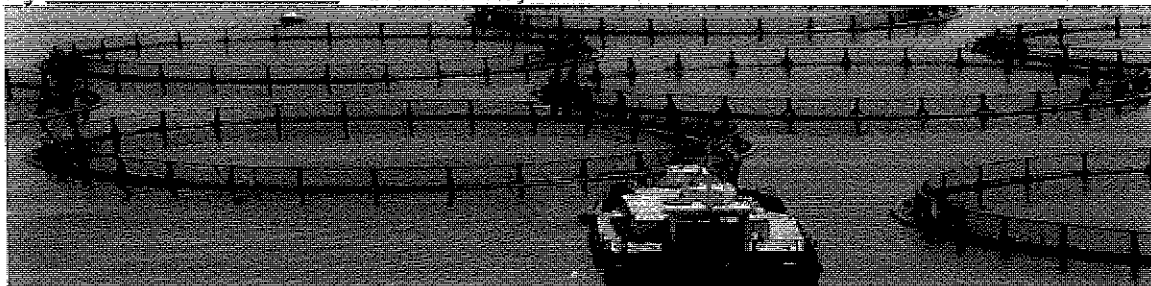


## Appendix 19.

# 9 Things Everyone Should Know About Farmed Fish

## 9 Things Everyone Should Know About Farmed Fish

By David Robinson Simon November 7, 2013



If you eat seafood, unless you catch it yourself or ask the right questions, the odds are pretty good it comes from a fish farm. The aquaculture industry is like a whale on steroids, growing faster than any other animal agriculture segment and now accounting for half the fish eaten in the U.S. As commercial fishing operations continue to strip the world's oceans of life, with one-third of fishing stocks collapsed and the rest headed there by mid-century, fish farming is seen as a way to meet the world's growing demand. But is it really the silver bullet to solve the Earth's food needs? Can marine farms reliably satisfy the seafood cravings of three billion people around the globe? This article looks at aquaculture and its long-term effects on fish, people, and other animals. With this industry regularly touted as a paragon of food production, whether you eat seafood or not, you should know these nine key facts about farmed fish.

**1. Farmed fish have dubious nutritional value.** Here's a frustrating paradox for those who eat fish for their health: the nutritional benefits of fish are greatly decreased when it's farmed. Take omega-3 fatty acids. Wild fish get their omega-3's from aquatic plants. Farmed fish, however, are often fed corn, soy, or other feedstuffs that contain little or no omega-3's. This unnatural, high-corn diet also means some farmed fish accumulate unhealthy levels of the wrong fatty acids. Further, farmed fish are routinely dosed with antibiotics, which can cause antibiotic-resistant disease in humans.

**2. The farmed fishing industry robs Peter to pay Paul.** While some farmed fish can live on diets of corn or soy, others need to eat fish – and lots of it. Tuna and salmon, for example, need to eat up to five pounds of fish for each pound of body weight. The result is that prey (fish like anchovies and herring) are being fished to the brink of extinction to feed the world's fish farms. “We have caught all the big fish and now we are going after their food,” says the non-profit Oceana, which blames aquaculture's voracious hunger for declines of whales, dolphins, seals, sea lions, tuna, bass, salmon, albatross, penguins, and other species.

**3. Fish experience pain and stress.** Contrary to the wishful thinking of many a catch-and-release angler, the latest research shows conclusively that fish experience pain and stress. In one study, fish injected with bee venom engaged in rocking behavior linked to pain and, compared to control groups, reduced their swimming activity, waited three times longer to eat, and had higher breathing rates. Farmed fish are subject to the routine stresses of hyperconfinement throughout their lives, and are typically killed in slow, painful ways like evisceration, starvation, or asphyxiation.

**4. Farmed fish are loaded with disease, and this spreads to wild fish populations.** Farmed fish are packed as tightly as coins in a purse, with twenty-seven adult trout, for example, typically scrunched into a bathtub-sized space. These unnatural conditions give rise to diseases and parasites, which often

migrate off the farm and infect wild fish populations. On Canada's Pacific coast, for example, sea lice infestations are responsible for mass kill-offs of pink salmon that have destroyed 80% of the fish in some local populations. But the damage doesn't end there, because eagles, bears, orcas, and other predators depend on salmon for their existence. Drops in wild salmon numbers cause these species to decline as well.

**5. Fish farms are rife with toxins, which also damage local ecosystems.** You can't have diseases and parasites infecting your economic units, so operators fight back by dumping concentrated antibiotics and other chemicals into the water. Such toxins damage local ecosystems in ways we're just beginning to understand. One study found that a drug used to combat sea lice kills a variety of nontarget marine invertebrates, travels up to half a mile, and persists in the water for hours.

**6. Farmed fish are living in their own feces.** That's right, fish poop too. Farmed fish waste falls as sediment to the seabed in sufficient quantities to overwhelm and kill marine life in the immediate vicinity and for some distance beyond. It also promotes algal growth, which reduces water's oxygen content and makes it hard to support life. When the Israeli government learned that algal growth driven by two fish farms in the Red Sea was hurting nearby coral reefs, it shut them down.

**7. Farmed fish are always trying to escape their unpleasant conditions, and who can blame them?** In the North Atlantic region alone, up to two million runaway salmon escape into the wild each year. The result is that at least 20% of supposedly wild salmon caught in the North Atlantic are of farmed origin. Escaped fish breed with wild fish and compromise the gene pool, harming the wild population. Embryonic hybrid salmon, for example, are far less viable than their wild counterparts, and adult hybrid salmon routinely die earlier than their purebred relatives. This pressure on wild populations further hurts predators who rely on fish like bears and orcas.

**8. See: the Jevons Paradox.** This counterintuitive economic theory says that as production methods grow more efficient, demand for resources actually increases – rather than decreasing, as you might expect. Accordingly, as aquaculture makes fish production increasingly efficient, and fish become more widely available and less expensive, demand increases across the board. This drives more fishing, which hurts wild populations. Thus, as the construction of new salmon hatcheries from 1987 to 1999 drove lower prices and wider availability of salmon, world demand for salmon increased more than fourfold during the period. The net result: fish farming cranks up the pressure on already-depleted populations of wild fish around the world.

**9. When the heavy environmental damage they cause is taken into account, fish farming operations often are found to generate more costs than revenues.** One study found that aquaculture in Sweden's coastal waters "is not only ecologically but also economically unsustainable." Another report concluded that fish farming in a Chinese lake is an "economically irrational choice from the perspective of the whole society, with an unequal tradeoff between environmental costs and economic benefits." Simply put, aquaculture drives heavy ecological harms and these cost society money. In the U.S., fish farming drives hidden costs of roughly \$700 million each year – or half the annual production value of fish farming operations. <http://www.mindbodygreen.com/0-11561/9-things-everyone-should-know-about-farmed-fish.html>

## Appendix 20.

# LABOUR CONFERENCE MOTION AGAINST SALMON CAGES PASSED ON 28.2.15

No Farmed Salmon Cages Motion Passed at Labour Conference Feb 28<sup>th</sup> 2015

Conference Motion: **Fisheries** Session 5 : Rural Affairs, Transport & Fisheries:

**Motion 81** ) Conference notes that wild Atlantic salmon are in danger of extinction. Conference further notes that they are protected under the European Habitats Directive (Annex 1+2). Conference calls on the government to ensure that no caged salmon fish farms be allowed off the coast of Clare, its surrounds and inland.

*Proposing Branch: North West Clare - (Clare) – The Chair proposed the motion be duly noted and sent back for EC/PLP consideration but the motion was debated on the insistence of the conference and was passed almost unanimously with Michael Mac Namara TD, Niall Greene and Nuala Nolan speaking passionately in favour of a cleaner Irish coastline.*

[https://www.labour.ie/download/pdf/labour\\_final\\_agenda\\_conference\\_2015.pdf](https://www.labour.ie/download/pdf/labour_final_agenda_conference_2015.pdf)

*Extract from the Connemara Journal:*



the **connemara**  
**JOURNAL**

Labour Party motion 'a blow to pro-salmon farm zealots' March 5, 2015

Galway Bay Against Salmon Cages has welcomed the passing of the a motion at the Labour Party Conference on Sunday, which called on the Government 'to ensure that no caged salmon farms be allowed off the coast of Clare, its surrounds and inland'.

Billy Smyth, chairman of Galway Bay Against Salmon Cages, told the *Journal*: 'The passing of this motion is very significant as it is now becomes Labour Party policy. The passing of this motion will also be a huge blow to the pro-salmon farm zealots who have been promoting the massive salmon farm in Galway Bay. 'The question now is: How can Minister Simon Coveney proceed with his plan for a salmon farm in Galway Bay if he doesn't have the backing of the Labour Party.'

The full text of the Labour party motion reads: 'Motion 81: Conference notes that wild salmon are in danger of extinction. Conference notes that they are protected under the European Habitats Directive (Annex 1+2). Conference calls on the Government to ensure that no caged salmon farms be allowed off the coast of Clare, its surrounds and inland. Proposing Branch: North West Clare.'

Mr Smyth added: 'We are encouraged to see the Labour Party take this position as there are a huge amount of scientific papers available to show that salmon farms destroy the environment and decimate wild fish stocks including shrimp, prawn, lobster and crab.'

<http://connemarajournal.ie/labour-party-motion-a-blow-to-salmon-farm-zealots/>

