Inland Fisheries Ireland Annual Report 2013





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Mission Statement

"To ensure that the valuable natural resources of inland fisheries and sea angling are conserved, managed, developed and promoted in their own right to generate positive return for the community and the environment."

Principal Functions

Inland Fisheries Ireland (IFI) is the statutory agency responsible for inland fisheries in Ireland. It operates under the aegis of the Department of Communications, Energy and Natural Resources (DCENR).

The principal function of Inland Fisheries Ireland is set out under Section 7 (2) of the Inland Fisheries Act of 2010. This is the protection, management and conservation of the inland fisheries resource. The general functions of IFI are to:

- (a) promote, support, facilitate and advise the Minister on the conservation, protection, management, marketing, development and improvement of inland fisheries, including sea angling,
- (b) develop and advise the Minister on policy and national strategies relating to inland fisheries including sea angling, and
- (c) to ensure implementation and delivery of policy and strategies developed under (b) as agreed with the Minister.



Inland Fisheries Ireland, Board Members

Mr Brendan O'Mahony	(Chairman) appointed with effect from the 1^{st} of July 2010
Mr John Carroll	appointed with effect from the 3^{rd} of November 2010 for a three year period concluding the 2^{nd} of November 2013
Mr Andrew Duncan	appointed with effect from the $1^{\rm st}$ of July 2010 for a three year period concluding the $30^{\rm th}$ of June 2013
Mr Lal Faherty	appointed with effect from the 1^{st} of July 2010
Mr John Geary	appointed with effect from the 3 rd of November 2010
Dr Frances Lucy	appointed with effect from the $1^{\rm st}$ of July 2010 for a three year period concluding the $30^{\rm th}$ of June 2013
Mr Marcus Mac Mahon	appointed with effect from the 17 th of November 2010
Mr Michael McGreal	appointed with effect from the 3 rd of November 2010
Ms Muireann O'Neill	appointed with effect from the 7 th of December 2010
Mr Peter John Nally	appointed with effect from the 10^{th} of September 2013
Mr Fintan Gorman	appointed with effect from the 10^{th} of September 2013
Dr Ciaran Byrne	CEO and ex-officio member by statute from the 1^{st} of July 2010.

Attendance at Board meetings from the 1st of January 2013 to the 31st of December 2013

During the period from the 1st of January to the 31st of December 2013 the Board held eleven Board meetings. Of the nine members and the ex officio member, 2 attended all meetings, 5 attended 10 out of 11 meetings. Of the three Board members appointed on a rolling three year term in 2010, 1 attended 7 out of 9 of the meetings held during their period of tenure in 2013, 1 attended 5 out of 6 and 1 attended 4 out of 6. Of the two new members appointed in September 2013, 1 attended 4 out of 4 meetings and 1 attended 3 out of 4 meetings.

Management Team

Dr Ciaran Byrne	Chief Executive Officer
Mr Pat Doherty	Head of Finance and ICT
Mr Kieran Murphy	Head of Human Resources
Dr Greg Forde	Head of Operations
Dr Cathal Gallagher	Head of Research & Development
Ms Suzanne Campion	Head of Business Development.



Chairman's Statement

On behalf of the Board and staff I am pleased to present the 2013 Annual Report of the activities of Inland Fisheries Ireland (IFI). The principal functions of IFI are set out in Section 7 of the Inland Fisheries Act 2010 and they are the protection, management and conservation of the inland fisheries resource. In addition, a general function of IFI is to promote, support facilitate and advise the Minister for Communications, Energy & Natural Resources on the conservation, protection, management, marketing, development and improvement of inland fisheries, including sea angling as set out in section 7 (2) (a) of the Act. This report provides a high level account of the work undertaken and the services provided by IFI during the period from the 1st of January 2013 to the 31st of December 2013.



In accordance with section 13.1 of the 2009 Code of Practice for the Governance of State Bodies;

- (i) The commercially significant developments that took place in 2013 was the disposal of the Glasnevin, Dublin premises in February 2013 and the acquisition of a new Dublin office in Citywest in March 2013 and the purchase of industrial units at Letterkenny, Donegal and New Ross, Wexford.
- (ii) The Board did not establish any subsidiaries, participate in joint ventures or acquire shares;
- (iii) The Board complied with all appropriate procedures for financial reporting, internal audit, procurement and disposal of assets;
- (iv) The Board has complied with its obligations under tax law;
- A statement on the Board's system of internal financial control is also available in this annual report;
- (vi) The Codes of Business Conduct for Directors and for Employees have been put in place and adhered to. These Codes are available on the IFI website;
- (vii) The Board has complied with Government policy on the pay of the Chief Executive Officer and all employees;
- (viii) The Board was in compliance with Government guidelines on the payment of Director's fees.
- (ix) As of now, there have been no significant post balance sheet events;
- (x) The Board has complied with the Guidelines for the Appraisal and Management of Capital Expenditure Proposals;
- (xi) The Board has complied with all Government Travel Policy requirements;
- (xii) All Board members have made a Disclosure of Interests in accordance with the 2009 Code of Practice for the Governance of State Bodies.
- (xiii) The 2009 Code of Practice for the Governance of State Bodies has been adopted by the Board and the Board is compliant with the provisions of the Code.

In accordance with Section 13.2 of the Code of Practice for the Governance of State Bodies I can confirm that no commercially sensitive developments took place during 2013. IFI purchased a new headquarters building as part of its plans to relocate its Dublin headquarters to avoid significant long term rent expenditure. Sanction and capital funding was provided by the Department of Communications, Energy and Natural Resources to facilitate the purchase and fit out of this building which is expected to be occupied by April 2014. This will necessitate the relocation of staff from the Swords and Blackrock offices.



Inland Fisheries Ireland was established at a unique time for the Irish public sector. July 2010 was approximately two years after the significant economic downturn manifested itself on the Irish economy. This was a period of the most considerable change and the focus of the public service was about increasing productivity and efficiency while at the same time significantly downsizing. In this regard the early years of IFI were all about restructuring key activities and business processes to ensure that the statutory functions as identified in Section 7(a) of the enabling legislation were achieved within the resource allocation provided to IFI.

This has proven to be an immensely challenging time for Board members and staff, however, I can say with confidence and conviction, as Chairman of the organisation, that we have achieved all that has been asked of us. Staff have proved to be incredibly resourceful and have willingly and enthusiastically embraced a range of new work practices and technologies to ensure the job gets done in the most efficient manner possible.

At a high level many of the strategic programmes put in place by the Board continued during 2013. During this year comprehensive audits of our Rigid Inflatable Boat (RIB) fleet and associated training provisions were carried out, which has led to the most comprehensive RIB training programme the Fisheries Service has ever been engaged in and this programme will continue for a number of years. The Board also progressed a number of property related projects the aim of which is to ensure that all staff members are provided with a safe and healthy place to work, and also to ensure that insofar as possible staff locations reflect the current needs of the organisation.

One of the key drivers for the rationalisation of the wider public sector was the establishment and maintenance of Employment Control Frameworks (ECF). Resulting from a significant number of retirements and also a targeted voluntary redundancy programme IFI are on target to meet all its ECF obligations. The corollary issue which has concerned the Board is the overall age profile of staff, given the nature of the work engaged in by IFI, and the potential for significant corporate memory loss if succession planning programmes are not widely supported.

From the Research & Development perspective 2013 was an exciting, challenging and very busy year. The international quality of IFI fisheries research was underpinned by a number of significant scientific publications, continued interaction at the highest level with a range of international scientific and fisheries management organisations and the signing of a Memorandum of Understanding with University College Dublin, one of Ireland's leading centres for Environmental science.

At Board level I was very pleased to welcome two new members during 2013, Mr P.J. Nally and Mr Fintan Gorman, both of whom will guide and direct the organisation over the coming years. I would also like to pay particular thanks to the two members who departed the board during this period, Mr Andrew Duncan and Mr John Carroll, both of whom were instrumental in the establishment of IFI and guiding it to the place it is in today.

For the staff, 2013 has been no less challenging than any preceding year. However they have just 'gotten on' with the job, and to a person they have displayed the most amazing capacity to deliver real outcomes and benefits in the face of considerable challenges. Adversity has become the norm and innovation is part and parcel of the daily job. Without the staff IFI would not exist in both a physical and metaphorical sense. It is their constant energy, zeal and desire to do the right thing which ensures we have delivered on our core objectives.

I would like to thank my fellow Board members for their support during 2013. The Board played a key role in delivering on the strategic priorities for the organisation in 2013 and making sure that plans were put in place to achieve these strategic priorities. I have no doubt that over the lifetime of the Board they will ably assist in transforming the inland



fisheries sector and delivering even greater returns and angling opportunities for the people of Ireland.

Finally I would I would also like to thank the Minister for Communications, Energy and Natural Resources, Pat Rabbitte TD and the Minister of State in this Department, Fergus O' Dowd TD, and the officials from their Department for their continued strong support.

Briendan O Makony

Brendan O'Mahony

Chairman

April 2014



Chairman's Statement on Internal Financial Control

In making this statement I have relied on representations made by management of Inland Fisheries Ireland. During the period from the 1st of January 2013 to the 31st of December 2013 the Board of IFI was responsible for ensuring that an appropriate system of internal financial control was in operation within the Agency.

The systems which the Board had in place could only provide reasonable and not absolute assurance that assets were safeguarded, transactions authorised and properly recorded and that material errors or irregularities were either prevented or were detected in a timely manner.

The system of internal financial control was based on a framework of regular management information, administrative procedures including segregation of duties, and a system of delegation and accountability. In particular it included:

- Strategic plans and annual budgets which were approved by the Board.
- High level budget reports which reviewed performance against budget and which were reviewed at Board meetings and Audit Committee meetings.
- Senior management meetings consisted of the Chief Executive and Directors along with the Head of Finance which met monthly to examine performance against budget and to discuss financial issues affecting the organisation.
- An internal audit function which monitored compliance with policies and procedures and the effectiveness of internal controls operated within the organisation. The internal auditor reported to the Chairman of the Audit Committee.
- An Audit Committee which was made up of a minimum of three Board members and which met four times in the year to 31st of December 2013. The Committee's duties include:
- a) review of annual financial statements before submission to the Board.
- b) discussions as appropriate with the Comptroller and Auditor General's Office.
- c) discussion of any problems and reservations arising from internal and external audit and any matters which auditors may wish to discuss with the committee (in the absence of management where necessary).
- d) to review the external auditor's management letter and management's response.
- e) to review the Boards internal control systems with particular reference to EU funds.
- f) to consider major findings of internal investigations and management's response.
- g) to consider other relevant topics, as defined by the Board.

The Chairperson of the Audit Committee reports to the Board.

The Board takes major strategic decisions and meets at regular intervals to monitor performance and plans. The executive management only act within the remit delegated to them by the Board to give effect to Board policy and decisions. The Board's professional advisors are available for consultation by the Board as required. The Board approved the risk policy subject to risk scoring being reviewed.

In respect of the period ended 31st of December 2013, a review of the effectiveness of the system of internal financial control was formally conducted by the internal auditors on behalf of the Board.

Brendan O Makony

Brendan O'Mahony Chairman



Comment of the Chief Executive Officer,

Dr Ciaran Byrne

2013 was a good year for Inland Fisheries Ireland from a number of perspectives, most important of these was that the organisation delivered on its statutory remit, the conservation, protection management, marketing, development and improvement of inland fisheries including sea angling within the resource allocation, both budgetary and staff, provided to it.

IFI is a very fluid and dynamic organisation and it can respond rapidly to environmental conditions to generate the best return for the fisheries sector. This ability to adapt and prosper is complemented by the fact that many staff are cross functional, and are equally capable of conducting fisheries protection work as



fisheries development or education work. 2013 was characterised by having a warm and dry summer which meant that there was an increased focus on fisheries development projects, both catching up on the projects which could not be completed or even commenced in 2012 because of the wet weather, and also starting new projects. Some of the projects undertaken in 2013 are referenced in this report.

From a fisheries protection perspective the weather dictates in many cases where and what fisheries protection takes place, whether in the estuary, on the lake or in the upper catchments of rivers. Fisheries protection is and will always be a core part of the remit of IFI. This aspect of the business is still very active but staff have been to the forefront in utilising an entire suite of modern technologies to improve detection rates and effectively protect the inland fisheries resource.

Angling tourism is to a degree a subset of tourism generally and the high level trends evident in the overall tourism market are reflected in angling tourism figures. There is work to be done in relation to continuing to grow visiting angler numbers in the coming years. 2013 was a successful year for IFI in this regard with a number of initiatives successfully undertaken, from attending high profile national, international angling and lifestyle shows, to generating substantial coverage of Irish angling in a range of sectoral publications. The publication of the 2013 Socio-Economic Study of Recreational Angling in Ireland identified that angling generated in the region of €755 million for the Irish economy when both direct and indirect impacts are taken into consideration and this expenditure supported in the region of 10,000 jobs. This was the first time such a study had been undertaken in Ireland and its results will be used to inform the promotion and development of angling in the coming years.

However, I am also happy to report that as well as a vibrant recreational angling sector IFI also manages the commercial salmon fishing sector and 2013 was in general a good year in terms of achieving the commercial quotas set on the individual rivers which had harvest surpluses. IFI provides advice on the management of 143 salmon rivers on an annual basis.

From a Research & Development perspective a number of the key operational monitoring programmes such as the Water Framework Directive, Habitats Directive, and Eel Management continued during 2013 and the favourable weather conditions assisted staff in conducting the field elements of these programmes. In addition to the programmes mentioned above IFI formally initiated the National Bass programme which aims to support our understanding of the dynamics of Irish bass populations. In 2013 the Erriff River was designated as a national sea trout index catchment and IFI are developing facilities here to support the research being undertaken at this location. There was also significant focus on the development of invasive species policy and legislation and IFI hosted the seminal Freshwater Invasive Networking for Strategy 'FINS' conference in Galway at which leading experts on aquatic invasive species gathered to identify the key policy and research priorities for invasive species. This meeting has resulted in a



significant peer reviewed publication. IFI in conjunction with the Department of Communications, Energy and Natural Resources was proud to host the North Atlantic Salmon Conservation Organisation (NASCO) annual meeting in Drogheda in June 2013. NASCO is a UN treaty organisation and its membership comprises all of the countries around the North Atlantic with responsibility for the management of salmon. This was a significant international gathering and proved to be an excellent platform to display the conservation focus adopted by the Irish authorities in the management of salmon.

Finally, scientists from the Research & Development Division responded to a significant number of requests from our parent Department and others to provide scientific advice on all aspects of the management of fisheries. The international quality of the scientific research undertaken in IFI was highlighted by the quality of the peer reviewed publications produced in the Division and the range of national and international groups which scientific staff participated in during the year.

In conclusion I would like to thank all of the staff of IFI for their excellent work in 2013 and for making it such a successful year for the organisation.

Civilian 3 years

Dr Ciaran Byrne

CEO

Inland Fisheries Ireland



Operations

Operations – An Introduction

The Operations Division manages the day to day field activities of Inland Fisheries Ireland including fisheries protection, development and enforcement. The Division is led by the Head of Operations, Dr Greg Forde, based in Galway and assisted by six River Basin District Directors.

The weather patterns that prevailed throughout 2013 had a considerable bearing on the activities within the Operations Division throughout the country. The extremely cold and wet start to the year curtailed illegal fishing to a large degree, and the dry summer months exposed the vulnerability of fish to high temperatures, low oxygen, the risks of fish kills and environmental pollution and also afforded poachers considerable opportunity to access fish in low water. As a consequence just over 24,000 metres of illegal netting was recovered in 2013, mainly during the summer months and this has also resulted in a significant number of cases being brought to court for illegal fishing activities.

IFI continues to adapt development, protection and environmental practices to maximise the return on state investment in policing, conserving and developing our inland fisheries resource. The implementation of proven traditional work processes and the increasing use of new innovative approaches such as kayak and bike patrolling, dog assisted patrolling, covert surveillance technologies and improved water quality monitoring equipment have delivered significant improvements in efficiencies and effectiveness during 2013.

Protection of our Fisheries Resource

IFI continues to operate one coastal protection vessel on the east coast of Ireland. The vessel patrols from Malahide, Co. Dublin to Dundalk, Co. Louth and as far as Greystones, Co. Wicklow and beyond.

Arising from inland patrols and patrols at sea over 450 nets were seized measuring over 24,000 metres. A range of fishing gear was also seized including fishing rods, dinghies, hand lines, pitchfork & spear, quantities of fish, oyster and scallop.

A number of joint sea patrols were carried out between the different IFI River Basin Districts (RBDs) as well as joint patrols with the Sea Fisheries Protection Authority (SFPA) and patrols accommodating the Environmental Protection Agency (EPA) in offshore water sampling.



Figure 1. A large number of coarse fish seized following an illegal netting operation



Prosecutions have or will be initiated in respect of 112 incidents for breaches of fisheries legislation that occurred during 2013. This is a 14% increase on 2012. These include one individual who was apprehended engaging in illegal activity on more than one occasion during the year. The offences covered a broad spectrum including fishing during the closed season, illegal netting, spearing fish and hand picking of oysters amongst others. 294 On the Spot Fines (OTSF) were issued in 2013 and \leq 32,810 was received in payment. These funds were reinvested in the protection, management and development of inland fisheries.

The large quantity of net seized from both freshwater and at sea is indicative of the ongoing threat posed to fisheries from illegal activity and highlights the need for a robust deterrent. Of particular concern during 2013 was the targeting by poachers of river systems which were below their conservation limits for salmon, and the netting of spawning streams in November in certain important trout and salmon catchments.

One of the more innovative approaches developed by IFI during 2013 was the concept of dog aided patrols. The first IFI patrol dog 'Sika' has proven herself to be very adept at locating 'poaching paraphernalia' such as hidden nets, weights, rope and sacks. These finds will assist staff in targeting specific areas for future surveillance patrols. Initial steps have been taken towards the national roll-out of a dog aided patrol programme.



Figure 2. IFI Fisheries Officer with detection dog 'Sika'

The deployment of kayaks on rivers and lakes in 2013 continued to enhance the effectiveness of IFI's actions to minimize illegal fishing activity. Illegal fishing equipment was confiscated during a number of kayak patrols. It is now possible to patrol entire river systems in a number of hours, covering fishermen on both banks, in areas which had previously taken several days to patrol due to the remote location, poor access or overgrown nature of the terrain.

Similarly, the use of Personal Water Craft (PWC) greatly enhanced the distances staff could patrol in estuarine and coastal waters. The cost savings gained by deploying PWC as opposed to Rigid Inflatable Boats (RIBs) were considerable both in terms of operating costs and manpower. In addition, PWC are particularly useful due to their speed, ease of deployment and overall versatility. There is a greater likelihood that IFI will be in a position to respond to an alert more rapidly if it is in an area that can safely be reached by PWC due to the smaller number of staff required to implement a patrol.

The use of covert cameras have also proven invaluable with staff being alerted by text message and photograph both day and night to illegal poaching activities. The photographs in figure 5 illustrate the effectiveness of the photo scope; the boats photographed at magnification through the scope were dredging for oyster over 3.5 km from where the scope was located. Surveillance operations are rarely sited more than 2 km from any suspicious activity.



IFI staff continue to experience incidences of aggressive behaviour from offenders and this appears to be on the increase. When such an incident occurs the assistance of the Gardaí is sought. Every effort is made to ensure that staff are both adequately prepared and trained for such instances. The courts take an adverse view of incidences of obstruction and particularly assault against fisheries staff. The introduction of body mounted cameras which IFI protection officers can use to record the behaviour and reaction of individuals encountered during daytime patrols has proved very effective in terms of dealing with aggressive or potentially violent individuals.







Figure 4. Poachers returning from a Donegal River captured on covert camera



Figure 5. Actual view without photo scope (left) and red circled area taken at 3.5 km using scope (right)

The TETRA radio communications system which is currently used in the South Western River Basin District (SWRBD) area, is now the principal field communication system deployed by IFI protection staff in this area.

IFI also experienced a 9% increase in reports received to the 24 hour telephone hotline during 2013 with a total of 521 calls. Where these reports are current and 'live' they can provide very valuable information for staff, however, many are reported long after the activity has ceased, or the information is scant and the location impossible to identify.

In areas where coarse fishing is concentrated, patrolling was intensified over weekends and Bank Holidays when large numbers of anglers are able to travel long distances to avail of coarse fishing. These patrols in conjunction with the confidential hotline proved useful tools in both deterring illegal activity and helping IFI to take successful prosecutions. An example of illegal coarse fish seizures is provided below.





Figure 6. Items used in illegal fishing operation seized at Whitewood Lake, Kilmainham Wood, Co. Meath

Twelve eel fyke nets, a fishing boat and a large coghill net were seized during the year in the North Western River Basin District at Lough Oughter, Co. Cavan and forfeited to IFI indicating that a residual level of illegal eel fishing is continuing despite the closure of the eel fishery on conservation grounds.



Figure 7. Coghill net seized at Lough Oughter

State Fisheries Titles – Clongee and Gweebarra

The on-going issues relating to trespass on the IFI owned Cloongee Fishery, Co. Mayo were largely resolved during 2013 following a Circuit Court case in 2012 which resulted in convictions being secured in respect of several individuals who regularly fished the fishery without a valid permit. Following several adjournments, one of these individuals was convicted in December 2013 for numerous offences including assault and is due to be sentenced in 2014.

A special sitting of Glenties District Court, Co. Donegal was held on 10^{th} October by Judge Denis McLaughlin in order to deal with an initial sample of the Gweebarra angling cases dating back to 2007. Four individuals were found guilty of fishing without a permit, fined \in 500 each and ordered to pay legal costs.

Legislation

A number of new bye-laws were introduced during the course of the year to support the salmon management and other management programmes. In the case of salmon the majority of bye-laws introduced derive from the management regime adopted as a result of implementing the scientific advice received from the Standing Scientific Committee for



Salmon (SSCS). As a consequence, local bye-laws were introduced for specific rivers to enable their proper management.

For example, IFI introduced a new bye-law on the River Feale in 2013 - Bye-law 910, 2013 which brought in catch and release angling from the 1st of March until the 11th of May, and from the 12th of May a bag limit of one fish per angler, per day, to a maximum of three fish for the season. These measures were specifically designed to ensure that the River Feale was not over exploited.

The Environment and Fish

Fish Kills

53 fish kills were recorded nationally during 2013 of which details are provided in Appendix 12. This was more than five times the number (10) in 2012 and was a consequence of the very dry summer. The Eastern River Basin District (12 fish kills), Shannon RBD (19) and North Western RBD (10), were the area's most significantly impacted, accounting for 78% of the fish kills.

It is the policy of IFI to initiate a prosecution where a fish kill occurs and the source of the kill is identified. Some examples of prosecutions undertaken in this respect in 2013 are as follows:

A fish kill occurred on the River Dodder, Co. Dublin in March 2013 resulting in fish mortalities over a 2 km area from above Old Bawn Bridge downstream to Firhouse Weir. The subsequent investigation by IFI staff found dead adult and juvenile brown trout, lamprey and stone loach. River walk surveys between the 1st and the 4th of March by staff determined that in the region of 3,000 fish had been killed. Following sample analysis a prosecution was taken by IFI and a construction company was successfully convicted at the Dublin District Court on the 14th of October. The judge imposed a fine of €2,000 and awarded legal costs and expenses to IFI.



Figure 8. A sample of Brown trout killed on the 1st of March in the R. Dodder (note the range of age and classes of fish)

Following the accidental discharge of fungicide residue from a crop sprayer in June 2013, a fish kill occurred on the River Burren, Co. Carlow extending over 4.2 km and killing an estimated four to five thousand brown trout. The farmer responsible pleaded guilty to the offence at a sitting of Carlow District Court. IFI was awarded costs of \leq 2,135 by the Judge.

Water Quality & Pollution

IFI has worked hard to establish an excellent network of stakeholders who advise their staff of possible developments and incidents which could impact upon the fisheries



resource. In many cases this allows pre-emptive action to be taken before a potential threat becomes realised.

IFI also maintains a highly professional relationship with a range of other State agencies that have a remit in the protection of the aquatic environment and regularly liaise with them when required (e.g. the EPA's estuarine sampling programme, joint investigations with Local Authorities, cross compliance matters etc.).

IFI Environmental Staff are focused on investigations in relation to environmental issues and on assessing the potential impact of developments on water quality and fishery habitats. Staff also reviewed and made submissions on 3,662 planning and licensing proposals and 1,145 forestry proposals for projects which are likely to have an impact on the aquatic environment. In addition there were 7,908 inspections undertaken on water/ wastewater treatment plants, civil engineering works and agricultural sites during 2013.

A number of Teagasc advisor training courses for farmers were delivered around the country as part of the Rural Environmental Protection Scheme (REPS) following the roll out of the updated Teagasc/ IFI advisors training course. The scheme is designed to reward farmers for carrying out their farming activities in an environmentally friendly manner and to establish farming practices aimed at protecting the natural habitat.

The course is a joint initiative between Teagasc and IFI and courses are being held throughout the country. The classroom session comprised a series of lectures presented by IFI and Teagasc staff with a site visit in the afternoon to a farm in the locality where the practical aspects of the morning session can be addressed. IFI staff demonstrated macro-invertebrate sampling in the river and explained the value of these insects to the aquatic ecosystem and in evaluating water quality. Teagasc staff displayed their water sampling station, which includes a hydrometric weir and automatic sampling equipment.



Figure 9. Teagasc/ IFI site visit as part of Training on Water Quality

Apart from the hot dry summer resulting in very low water levels for much of the summer, other notable impacts on water quality/ habitat during 2013 included a number of incidences of removal of river bed materials resulting in river ecosystems and river bank stability being compromised. In one incident detected on the Cavan Town and Derryvalley Rivers, river substrate was removed and deposited onto the river bank resulting in significant habitat loss and severe silting downstream. There was abundant aquatic weed and algal growth in lakes, particularly Lough Corrib, the Castlebar Lakes and Lough Rea with the likely causes being the greater amount of sunshine and lower water levels.



Infrastructural projects

Liaison, direct cooperation and collaboration with all stakeholders at local level are a key component of IFI's work in the River Basin Districts (RBDs). In 2013 IFI continued to proactively contribute to infrastructural projects to ensure their sustainable design and implementation. These inputs resulted in the conservation, protection and in many cases enhancement of the wild fisheries resource at minimal cost to the State.

IFI staff also continued to proactively consult and liaise on infrastructural developments in Local Authority (LA) Draft Development Plans and other Strategic Plans and documents (in the environmental context). These inputs ranged from scoping, design and construction stages in addition to examining and making submissions as required. Many LAs and the Office of Public Works (OPW) continued to make progress during 2013 with emergency flood relief measures at priority areas around the country. However the very wet conditions at the end of the year may have highlighted other areas where flood relief measures will be required in the future.

In the lower River Dodder, Co. Dublin, large-scale in-stream works extended from the tidal area into the section upstream of Lansdowne Road Dart Station.



Figure 10. In stream works on the River Dodder, Ballsbridge, Co. Dublin

Other significant infrastructural projects engaged in during the year included the Eirgrid Grid Link Project where consultation continued with RPS Group Plc whose remit on the project included engineering and environmental design.

Consultation and coordination between IFI and the National Roads Authority (NRA) on the North West Bridges Maintenance scheme 2013-2015 continued during the year. This project involves some 400 bridges which require maintenance or repair.

Staff have been involved in consultation with Jacobs Engineering Ltd with regard to the Environmental Impact Statement (EIS) Scoping Stage Consultation Brief prepared on behalf of the four Dublin Local Authorities and Meath and Kildare County Councils for a single wastewater treatment plant (WWTP) to be located at Clonshaugh in Fingal with a marine outfall 6 km out to sea from Baldoyle Bay and 1 km north-east of Ireland's Eye. In making their submission IFI sought that the consultants highlight the importance of the area for commercial fishing and as an angling amenity. IFI requested that all assessments be cognisant of National and European legislation in particular the EU Water Framework Directive, EU Environmental Objectives (Surface Water) Regulations 2009, Quality of Bathing Water Regulations and EU Shellfish Water Regulations and the Habitats Directive.

Staff also spent a significant period of time on site liaising with contractors to ensure construction methods were compatible with the protection of the fisheries environment where a significant gas pipeline was laid between Baunlusk, Co. Kilkenny and Great Island, Co. Wexford which crossed numerous rivers and streams.





Figure 11. Temporary silt settling and containment ponds at the site of the gas pipeline

A significant amount of drainage works were undertaken by both Local Authorities and landowners during the dry September period. Unfortunately not all of this work was carried out to the satisfaction of IFI and a number of projects were suspended until training was provided to machine drivers, landowners, foremen and engineers on environmentally friendly methods of water conveyance improvement works.

Ennis Flood Relief Scheme

Clare County Council requested a derogation from the Department of Communications, Energy and Natural Resources for the Ennis Flood Relief scheme due to the risk of subsidence and flooding in respect of previously completed reinforcement works on the River Fergus. A steel pile wall had been erected but the ground was such that the bank on the riverside needed to be surcharged with rock to ensure stability. IFI reviewed the methodology and rationale for the work and subsequently supported the derogation application. The work was undertaken using a silt curtain and stone placement.



Figure 12. Ennis Flood Relief before and after works

Wind Farm Developments

Some of the more important wind farm developments include the Galway Wind Farm, and the Shannagurraun and Lettergunnet wind farms located close to Galway and the Oweninny and Cluddaun wind farms located in the Ballina area. IFI staff maintained a watching brief on all these developments.

A number of wind farms have been completed in Donegal and two have been refused planning permission due to environmental concerns. Proper treatment of drainage water during and after construction is an extremely important requirement and every effort is



made to undertake site inspections of wind farms at the critical phase of construction to ensure that best practice is adhered to. It is particularly helpful for any potential wind farm developer to engage in consultation well in advance of planning permission being sought.

Culverts

A number of new culverts and stream diversions were required during the year. One example is the new culvert and stream diversion on the N16 Manorhamilton/ Glenfarne Co. Leitrim road improvement works. IFI were requested to carry out a site inspection which revealed a number of shortcomings in the culvert design and positioning relative to the proposed watercourse diversion. Solutions to overcome the flaws were identified and detailed on site, including changes to invert levels, culvert baffles and a work methodology for the diversion itself.



Figure 13. N16 Manorhamilton/ Glenfarne culvert



Figure 14. Oversized culvert at Cloghbolie. This stream is the outlet from a number of trout bearing lakes.

General Environmental Issues – Challenges faced in 2013

Challenges persisted for IFI in the area of water abstraction and its impact on the fisheries resource. The absence of specific effective regulation in this area was particularly challenging in 2013 when the sustained warm and dry period of summer weather resulted in significantly increased water demands.



Figure 15. Dried out R. Clashawley, Fethard, Co. Tipperary



Figure 16. A large strand of weed being surveyed on the Castlebar Lakes

February was characterised by significant land-spreading of slurry by the agricultural sector, particularly in the last two weeks of the month. Field staff were vigilant in



monitoring such activity to ensure no discharges occurred to waters, whether deliberate or due to poor slurry spreading practice. Overall, land-spreading was satisfactory and the dry weather was certainly helpful for vehicle movement and slurry absorption.

A major fish rescue operation was undertaken in September on the River Clashawley (Suir catchment), following the drying up of large sections of the river. Due to drought conditions experienced over several months the water table in the area was lower than would normally be the case and as a result the river percolated through the river bed with only the occasional pool remaining. Fish became stranded in these remaining pools and approximately 500 trout, 50 salmon parr, lamprey, eels, stone loach and crayfish were released downstream where water levels were more stable.

Securing a future for fish

Development of Fish Habitat

A specialist report on the physical assessment of Drumin Mill on the White River, Co. Louth was produced during the year. This report aimed to assess the impact of a proposed fish pass on the heritage of the area. This fish pass has been identified as a priority for habitat development in the area and would open up 10 km of prime salmonid spawning habitat if constructed. Report results indicate that the proposed fish pass will have no adverse impacts on any archaeological or architectural remains at the site. Discussions on the basis of this report are on-going with the landowner, Louth County Council and the Department of Arts, Heritage and the Gaeltacht.

Development of Fish Habitat - Integrated Framework Plan

An integrated framework plan for the River Shannon was launched on the 22nd of November 2013. The plan arose as a result of the Strategic Environmental Assessment Directive. The main focus of the plan was to identify areas where development could take place with full regard to the environment, habitats and the socio-economic benefits. IFI's key input was to ensure that the importance of fisheries was clearly identified in terms of angling and shellfish and to ensure the protection of water quality and the aquatic habitat and to ensure that the potential for angling in the estuary and the surrounding hinterland was fully assessed and would not be excluded from development opportunities in the future. The Birds Directive, the Habitats Directive and the Water Framework Directive are all seen as important drivers in protecting habitats, species and water quality and ensuring that environmentally sustainable developments can take place in a coordinated fashion.

Strategic Environmental Assessment is seen as an important emerging process designed to highlight potential areas for development at a strategic level. However the overall thrust is to ensure that all and any development will be environmentally sustainable and comply with all relevant EU directives and national legislation.

Owengar River Restoration Project

The Owengar River Restoration Project commenced in 2010, as a result of impacts from a major landslide at the Garvagh Glebe wind farm in 2008. This landslide impacted on the entire Owengar River from the source of the slide to where the river enters the Shannon at Lough Allen. The Electricity Supply Board (ESB Ireland) contributed €375,000 to IFI to carry out a rehabilitation programme for the river. To date 7 km of channel has been restored at various sites on the river. Works included bank stabilisation, rip rap protection of eroding banks, creation of level bed deflectors within the channel, removal of tree debris, re-instating remediation works on areas affected by further debris and creating natural rock steps above the R280 Bridge to enable passage of fish.



Rubble mats have proven to be the most successful structures in the Owengar Restoration programme, this is due to their low level to the bed of the river and that they mimic the natural in-stream features found in similar spate rivers such as the Yellow and Arigna Rivers. Initial electrofishing surveys carried out have indicated a recovery in trout numbers to the rehabilitated areas. A full electrofishing survey will be carried out in 2014 and compared with the baseline survey carried out prior to the works.

Rehabilitation works

Significant bank rehabilitation and development works took place around the country during the summer months subject to the appropriate weather and water conditions. While a significant amount of these works were covered under the Salmon Conservation Fund programme – others were funded through the development budget of IFI.

Of particular note was the extensive fisheries enhancement works completed on some of the feeder streams flowing into the Great Western Lakes (Loughs Corrib, Mask and Carra). These works which are aimed at improving trout productivity were completed on 5 streams and involved the introduction of 465 tonnes of spawning gravels, the construction of 115 weirs and deflectors, fencing of 350 m of channel and the strategic placement of 500 tonnes of rock. Approximately €25,000 in total was donated from a number of angling clubs, the Corrib Federation and the Clydagh Foundation and additional support was provided by the OPW.



Figure 17. In-stream enhancement works underway on Carney's Stream near Cornamona



Figure 18. The Brickeen Stream, L Arrow catchment before channel clearance (left) and after (right)



Stock management programmes continued on the major designated wild brown trout fisheries and these included fish salvage operations and the release of wild trout fry that were becoming trapped in low water.

In accordance with current policy, all pike 90 cm or greater were returned to the water on Loughs Corrib, Mask and Carra and, wherever possible, on Loughs Conn & Cullin, viable pike were restocked to designated pike fisheries.



Figure 19. A large pike being tagged prior to its return to L. Corrib



Figure 20. A pike being released following relocation from L Conn

As a result of the warm summer weather a significant number of fish salvage operations were necessary due to very low water levels, particularly in channels flowing through porous limestone areas. Within the Corrib and Mask catchments salvage operations were mounted on 15 channels including the Cong Canal where fish salvage operations were carried out on 3 separate occasions. In total, 28,364 fish were removed from channels which were drying up and relocated to locations where water levels were stable.



Figure 21. Fish salvage operation underway on the Kinlough Stream near Headford in the Corrib catchment

Managing Lakes and Rivers

Salmon smolts and kelts migrating downstream in the River Liffey system have found it difficult to locate the mouth of the Boreland fish pass at Leixlip Dam since its installation. This has resulted in sub-optimal numbers of fish descending the structure. During 2013 the ESB liaised directly with IFI on a works programme costing in the region of €20,000 aiming to improve fish pass and counter efficiency at Leixlip Hydroelectric Dam on the



River Liffey. IFI liaised on works which involved relocation of a fish cradle to a more appropriate and efficient position which will improve accuracy of fish counts. Works on the Boreland fish pass at the same location were subsequently undertaken which further improved efficiency of fish passage (particularly for smolts and kelts) at the dam. Improved numbers of salmon smolts used the fish pass during the smolt run in 2013 and more recently salmon kelts were observed descending through the same pass in good numbers. Indications so far are that the project has significantly improved the downward migration of smolts and kelts.



Figure 22. The new platform and fish cradle constructed by ESB engineers at Leixlip Hydroelectric Dam

A smolt trap was deployed on the Avoca River, Co. Wicklow during the salmon smolt run in 2013. The trap was set upstream of the Avoca mine acid discharge to prevent the downstream migration of smolts into the most heavily contaminated section of the river. Fish were trapped in their 100's every day for an extended period and were removed to a safe point approximately 10 km downstream where they were released back into the Avoca River to continue their seaward migration. The prolonged period of fine weather and low river water levels permitted an extensive programme of catchment wide electrofishing to be completed on rivers throughout the country.



Figure 23. Avoca River smolt trap with mine drainage visible in the background

Development of Angling Infrastructure

IFI staff took advantage of the fine summer and undertook an extensive programme of angling infrastructure works. There were 51 angling facility enhancement projects and 277 structures from footbridges to stands to stiles removed and replaced with new structures. On-going maintenance of IFI structures was also completed in 2013.

Disabled angling facilities were provided at Lough Ramor, Virginia, Co. Cavan, Lough Loung, Co. Roscommon and Lough Acalla, Kilconnell, Co. Galway under the Midland



Fisheries Fund and at Lough Doon, Co. Leitrim. The project at Lough Doon was funded under the Harnessing Natural Resources fund which was administered by Cavan County Enterprise Board.

Figures 24, 25 and 26 show a small sample of the development works carried out during 2013.



Figure 24. A concrete wheelchair accessible walkway and connecting bridge at Lough Acalla, Kilconnell (Galway). Constructed under the Midland Fisheries Fund 2013.



Figure 25. Floating pontoon and access bridge accessible to disabled anglers at Lough Doon (left) and finished access road and parking area with floating pontoon and picnic area visible in the background (right)



Figure 26. New footbridge constructed on tributary of the Gweebarra River, Co. Donegal



Old infrastructure was removed at Corravoo Lough (Cootehill) and two new double angling stands were erected. Five old timber angling stands were removed from Bunn Lough (Belturbet) and replaced by two new double stands. Old infrastructure was also removed at Summerhill, Horseshoe and Tirnahinch Lough (near Clones). An on-going programme of angling infrastructure replacement is being progressed in conjunction with Clones Erne East Blackwater Development Project. Upgrade of access to Derrycassan Lough (Shannon Erne/Woodford) was carried out by Cavan Co. Council and new angling stands are being put in place by Waterways Ireland.



Figure 28. New double stand installed at Bunn Lough, Co. Cavan

Mulkear LIFE+ Project

Work on the modification to Ballyclough weir, on the River Mulkear, Co. Limerick was completed in July 2013. Significant progress was achieved due to favourable weather conditions and low water levels. The work consisted of the partial removal of the main section of the weir to provide fish passage for lamprey and salmon. The remaining sections of the weir were underpinned by the Mulkear Life+ Project partners, OPW in association with Limerick County Council Heritage officers to preserve the remainder of the structure.

Fish Counters Programme

IFI manage 37 fish counters throughout the country covering 31 rivers, of these 24 have full fish counts and 7 have partial fish counts. The fish counters programme has provided reliable results for key river systems during the year. This provides additional stock data and associated scientific confidence when setting conservation limits for these systems. IFI continues to look for suitable counter sites on key rivers in line with IFI's fish counter policy and suitable fish counter sites on key rivers are being assessed.

In 2013 the software upgrade for storing the data and the verification process was completed for the Logie fish counters. Phase two of this development is at an advanced stage and will include storing historical data and Vaki fish counter data. This will make the management of all fish counters more streamlined. This counter data depository is being used successfully by IFI staff managing the data at all aquatic counter installations and will include all counters (Vaki) from early 2014.

Several counter sites suffered direct lightning strikes during 2013. This was more prevalent than in previous years due to the unusual weather conditions. The subsequent downtime was minimised due to the level of spare parts now carried by IFI and the level of expertise developed by staff in identifying faults and replacing equipment.

Maintenance and upgrades took pace where appropriate during 2013 with the Rivers Maigue, Fergus and Mulkear requiring most attention.



During 2013 Minister Fergus O'Dowd visited the fish counter sites at Cappogue on the River Dee and Stephenstown on the River Fane, both in Co. Louth. IFI staff demonstrated the operation of the counter to the Minister and provided a tour of the sites.



Figure 29. IFI Assistant Inspector Ronan O'Brien, Minister of State at the Department of Communications, Energy and Natural Resources Mr Fergus O'Dowd, TD and Mr. Jim Curley (Dee and Glyde Club) at Stephenstown on the River Fane, Co. Louth.

Managed Fisheries

IFI continues to manage a number of fisheries throughout the country. In some instances management is carried out by the local angling clubs under an agreement with IFI. Some of the better known managed fisheries are the Galway and Erriff Fisheries, the River Moy, Loughs Corrib, Mask, Carra, Conn, Arrow, Melvin, Sheelin, Owel, Ennell, Derryvarragh, Leane, Inchquin and the Rivers Eske, Eany and Owenea.

Cong Fish Hatchery

The fish hatchery in Cong, Co. Mayo produced 70,000 salmon smolts which were propagated from returning ranched salmon trapped at Cong in the winter of 2011. The smolts were released in quantities of 10,000 at Cong, the Corrib River and at the Erriff following several weeks of on-site imprinting. The smolts were divided into a number of batches and included some which had been treated with an anti-sea lice product (SLICE) and some which received no anti-sea lice treatment. The return rates of these smolts will be monitored and will provide essential baseline data in advance of a possible major fish farm development proposed for inner Galway Bay and another off Inishturk Island which could impact the Erriff and Bundorragha (Delphi) Rivers. A further 978 salmon were trapped in late 2013 and an estimated 1.4m salmon ova were laid down for smolt production and release in 2015 to continue this experiment.

Management of Aquatic Invasive Species (AIS) in Ireland

IFI has assumed the lead responsibility for managing the threat from aquatic invasive species (AIS) in Ireland and has continued to be centrally involved in this increasingly important issue in 2013.

The four year EU funded LIFE+ Nature and Biodiversity project 'Control of Aquatic Invasive Species and Restoration of Natural Communities in Ireland' (CAISIE) concluded in January 2013 with the final report submitted to the European Commission in May 2013. The overall objective of this flagship project was to prevent further impacts on native biodiversity from high impact AIS. The project implemented wide-ranging measures to successfully control the highly invasive curly-leaved waterweed



(*Lagarosiphon major*) in Lough Corrib (in counties Galway and Mayo) and a number of highly invasive aquatic and riparian invasive species in the Grand Canal and Barrow Navigation. The extensive programme of stakeholder engagement, education and awareness and policy development initiatives undertaken throughout the project culminated in a high profile international conference, 'Freshwater Invasives – Networking for Strategy' (FINS), which was co-hosted by IFI and the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC) in Galway in April 2013. Further details on the CAISIE Project including deliverables and outcomes can be viewed on-line at www.caisie.ie.



Figure 30. Minister of State at the Department of Communications, Energy & Natural Resources, with responsibility for Inland Fisheries Mr Fergus O'Dowd TD and the IFI EU LIFE and CAISIE project team at the FINS Conference (April, 2013)

During August 2013 a new invasive species was detected on Lough Derg, and was identified as a jelly fish (*Craspedacusta sowerbii*), by Dr Tom Doyle of UCC. This is the first official recording in Ireland of this freshwater jellyfish which hails from the Yangtze River Valley, China. It is speculated that the appearance of the jellyfish is linked to the higher than normal temperatures. This species is not harmful to the local fish population.

Following a report of dace (*Leuciscus leuciscus*), in the Mulkear River during September, IFI carried out an electro fishing operation which confirmed the presence of dace and also ageing analysis which suggested that they had been present in the system for upwards of 10 years.

Biosecurity systems were installed at three of the IFI managed fisheries; Moy, Erriff and Galway to help prevent the spread of aquatic invasive species.

In September 2013, an extensive lake-wide survey was conducted to determine the current status of the curly-leaved waterweed (*Lagarosiphon major*), in Lough Corrib in order to inform future weed management activities. It was established that since intensive IFI-managed control operations commenced in 2008, 86.38% of the infestation in the lake has been treated. As a result, numerous previously infested bays have been re-opened for recreational angling and boating. The operations have halted the spread of the weed into the highly vulnerable shallow lower lake where it would have the potential to exacerbate flooding events in the catchment. In addition, the control operations directly facilitated the rehabilitation of the native charophyte habitat in treated areas. This keystone habitat is essential to maintain a healthy and viable population of brown trout in this internationally renowned fishery.



In 2013, IFI continued to promote the awareness of AIS among stakeholders and the general public by producing a range of information materials, use of social media and participating in numerous events throughout the year. Key stakeholders included game and coarse anglers, recreational boaters, paddle sports enthusiasts and scuba divers, as well as horticulturalists and the ornamental trade. As part of this, IFI supported the implementation of AIS biosecurity measures at national and international angling competitions including the World Cup Trout Fly Championship in Lough Mask, and crossborder World Youth Fly Fishing and World Pairs Coarse Angling Championships.



Figure 31. Locations where weed control operations were carried out in 2013

Property & Facilities

A complete inventory of all IFI properties was undertaken in 2013. This identified properties that are essential for on-going and future operational needs, those superfluous to requirements and properties that will await a determination on their future pending a full restructuring of the organisation and review of priorities.

In addition during 2013 IFI completed the purchase of a new base at Thorn Road, Letterkenny, Co. Donegal and a new depot in New Ross, Co. Wexford. Both buildings were in the process of being customised to meet the specifications required by IFI at the year end.

Citywest

A new headquarters was purchased in Citywest, Dublin 24 that will accommodate the existing staff from the Swords and Blackrock offices. The fit out of this premises is due for finalisation in the spring of 2014.

Fitzgerald Barracks Fermoy

During the year IFI reached agreement with the Department of Defence to purchase Fitzgerald Barracks in Fermoy, Co. Cork after the Fire authorities deemed the premises that IFI staff were occupying in Fermoy as unsafe. The sale was nearing conclusion at year end and it is anticipated that the location will become the site for a purpose built fisheries store and depot in Fermoy in 2014.



Research and Development

Research and Development – An Introduction

Inland Fisheries Ireland (IFI) is tasked with the conservation, protection and development of the inland fisheries resource. The Research and Development (R&D) Division of IFI is tasked with the delivery of high quality applied research and scientific advice to support the management of this natural resource. In line with resource reductions IFI has consolidated activities to concentrate on delivery of research to statutory responsibilities under the 2010 Fisheries Act, the Habitats Directive, Water Framework Directive, European Union Eel Regulation and to support the development of new national and European legislation.

While conducting research is essential, it is the outputs from the research, which is given in the form of expert advice that supports management in their decision making. The servicing of advice requests from Government, the Department of Communications, Energy and Natural Resources (DCENR), other Government Departments, IFI management, stakeholders, international bodies and individuals continues to grow. The quality and provision of this advice is dependent on the quality, quantity and age of the available data, these data are delivered via some of the projects described in this report. It has been a focus of R&D projects to extract the maximum value from all surveys and research conducted; all surveys are designed to facilitate, where possible, delivery of data and knowledge to fulfil the requirements of deliverables across projects.

The R&D Division of IFI is delighted to report on the successful delivery against the goals outlined in IFI's 2013 Business Plans. All projects had a successful year given the resource constraints experienced. Resource issues were mitigated through project and task prioritisation but work was supported greatly by the excellent weather during the sampling season. Notwithstanding this situation, some projects were not able to complete the full planned field programmes. This section of the IFI Annual Report is not intended to document all of the work completed by the R&D Division during 2013, but does give a flavour of the research conducted and the Division's major achievements in 2013.

Water Framework Directive

In 2007, the inland fisheries service commenced a fish monitoring programme to assess the health of Ireland's rivers, lakes and estuaries. This work was required under the terms of the European Communities Water Framework Directive (WFD) which was transposed into Irish Law through S.I. No. 722 of 2003. The comprehensive three-year series of rolling fish monitoring programme developed by IFI encompasses over 300 water bodies, including 180 river sites, 78 transitional water bodies (estuaries and lagoons) and 78 lakes. Information collected in each survey is used to assign an 'ecological status' to each water body, ranging from high status to bad status.

WFD fish surveys conducted during 2013 were part of the third three-year rolling programme from 2013-2015. A further programme is expected to commence in 2016. Good weather during 2013 resulted in the completion of surveys for all scheduled water bodies. The IFI WFD team along with the assistance of many regional IFI staff successfully completed surveys in a total of 25 lake water bodies, 75 river water bodies and 10 transitional water bodies nationwide. The surveys were conducted using a range of European standard methods with electric fishing being the main survey method used in rivers and various netting techniques used in lakes and estuaries such as monofilament multi mesh gill nets, fyke netting, seine netting and beam trawling.

The fish populations in Ardderry Lake and Lough Shindilla at Maam Cross, Connemara are of concern as the abundance of Arctic char in Lough Shindilla decreased dramatically in the 2013 survey and no Arctic char were recorded in Ardderry Lake. In addition, the



abundance of perch in both lakes increased in 2013 compared to previous surveys. These lakes need to be closely monitored particularly as the Arctic char, a salmonid species is listed as "vulnerable" in the Irish Red Data Book and is particularly sensitive to anthropogenic impacts.

Preliminary reports for all water bodies surveyed in 2013 have been published on the WFD fish website (<u>www.wfdfish.ie</u>) and will be replaced with more detailed reports once all fish data has been processed. A comprehensive summary report of the 2013 surveillance monitoring programme will also be available in due course.

A new PhD project entitled "*Endangered fish species in Irish lakes: The development of novel sampling protocols for ecological and conservation status assessment*" funded by the Irish Research Council commenced in April 2013. This research project is a continuation of the advances that IFI have made in developing fish sampling methods for the WFD and Habitats Directive and will develop an integrated standard method (using hydro acoustics and limited netting) for estimating the population size of three endangered pelagic fish species (pollan, Killarney shad and Arctic char). All scheduled work for 2013 was completed and the project remains on target.



Figure 32. Gill netting on Glencar Lake, August 2013 and seine netting on New Ross Port, October 2013

Habitats Directive and Red Data Book Fish Programme

This programme which commenced in 2009 is designed to compile a baseline of the ecological status of a series of fish species, known as "conservation fish" species, and use the baseline to identify and undertake measures to conserve and enhance the status of these species. The species in question are river, brook and sea lamprey, twaite and Killarney shad, pollan and Atlantic salmon, all listed in Annex II of the EU Habitats Directive, as well as char and smelt. Under Irish law, the Minister for Communications, Energy and Natural Resources has a responsibility to undertake surveillance on the status of the Annex II fish species of the Habitats Directive and IFI performs this function for the Minister. Investigations on salmon are undertaken within IFI's national salmon monitoring programme.

A major task in 2013 was the compilation of status assessment documentation under Article 17 of the Habitats Directive, for submission to the European Commission. This task was completed on time and in conjunction with the National Parks and Wildlife Service who submit the Irish documentation to European authorities. The status of the river/ brook lamprey and the Killarney shad was assessed as 'Favourable'. However, the pollan, sea lamprey and allis shad were considered to be of 'Bad' status and the twaite shad as 'Inadequate'.



The lamprey ammocoete or larval programme has yielded a very substantial database and informed the selection of 'Index' or 'Reference' channels that will be the subject of monitoring in the 2013-2018 period. The Habitats Directive team had a peer-reviewed journal article published in 2013 dealing with aspects of brook lamprey spawning ecology and habitat.

Radio tracking of shads was continued in 2013 and the programme was expanded to include the Munster Blackwater as well as the Barrow-Nore estuaries. Despite the small number of shads tagged (less than 20 fish), fascinating information was obtained, suggesting that the fish are highly mobile in these large water bodies – with Barrow-tagged fish turning up in the Suir upriver of Waterford city and Blackwater fish migrating in and out to sea past Youghal.

Successful 'float-over' sea lamprey spawning surveys were undertaken by canoe/ kayak on the main stem of the River Nore and the River Suir with colleagues from the Southeast RBD. The outcomes, in terms of numbers of spawning sites observed and limited spread within the large rivers are a cause of concern and are consistent with the 'bad' conservation status assessment for this species submitted to the EU.

The fine summer weather of 2013 facilitated char surveys on Lough Nafooey, Co. Mayo and on Muckross Lake and the Cloonee Lakes system, Co. Kerry. Char were present in all four lakes surveyed, with several age groups present in the Cloonee Lakes. However, few char were taken in Muckross Lake, where large numbers of brown trout and perch were recorded, or in Lough Nafooey, where a large perch population was found.

National Eel Monitoring Programme

The National Eel Monitoring Programme (EMP) is in the 2nd three year cycle (2012- 2015) of monitoring. The aim of the programme is to fulfil Ireland's obligations (EU Eel Regulation 11000/2007) under the monitoring objectives set out in the national eel management plan. These objectives are:

- To estimate silver eel escapement (in collaboration with the Electricity Supply Board (ESB), the National University of Ireland Galway (NUIG) and the Marine Institute (MI)
- To estimate silver eel escapement indirectly using yellow eels
- To monitor the impact of fishery closure on yellow eel stock structure
- Inter-Calibration with Water Framework Sampling
- To compare current and historic yellow eel stocks
- To establish baseline data to track changes in eel stock over time
- To evaluate impedance of upstream colonisation: migration and water quality effects
- To determine parasite prevalence and eel quality.

A review of the first 3 years (2009-2012) of the monitoring programme was forwarded to the EU Commission in June 2012 as part of Ireland's reporting requirements. In May 2013 a European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)/ International Council for the Exploration of the Sea (ICES) working group evaluated all management plans and a report was submitted to the EU. In total 81 Eel Management Plans have been evaluated, 17 have reached the target of 40% escapement, 42 were below target and 22 did not report. Ireland has 3 EMP above the 40% target of historic silver eel production (Eastern RBD, South Eastern RBD and South Western RBD) and 3 EMP's below target (Shannon IRBD, Western RBD and North Western IRBD).

The national elver monitoring programme was carried out for a fourth year in 2013. The aim of the programme is to monitor the level of elver recruitment arriving in Ireland and



create a long-term time series to track changes in recruitment levels. Elver monitoring was undertaken at the six national sites. The monitoring of recruitment of elvers to Ireland was successful for the 2013 season with an increase in catches reported for 5 of the 6 sites. There have also been reports of improved recruitment in the UK and France for the 2013 season. However the recruitment of Eels around Europe remains at 10% of historic levels and continued monitoring is essential to determine if this increasing trend will continue over the coming years.

Monitoring of yellow eels populations in Irish lakes and rivers was continued in 2013 with intensive fyke net surveys undertaken in Lough Derg, Lough Muckno, Lough Key and the Barrow River. A new semi quantitative electrofishing technique targeting eels was trialed in the River Fane catchment in July 2013, in order to assess eel density in Irish streams and rivers. This method has potential to improve the efficiency of eel surveys by 166%, however it requires further investigation.

A change of tracking methodologies improved results compared to 2012, with the preliminary results suggesting that the eels studied in the upper River Barrow are showing site fidelity. It is important to demonstrate site fidelity when determining the home ranges of animals.



Figure 33. Eel release at Lough Muckno 2013

The experimental research silver eel fishery on the River Fane operated for the 2013 season with a total catch of 1,151kg for 19 nights of fishing. Fishing was undertaken by former commercial fishermen on behalf of IFI and after analysis all eels were released back in to the river. The large catch recorded this year is as a result of a restricted migrating window due to low water levels in September and early October followed by a severe flood event in late October. Fifty-seven percent of the catch was caught over 2 nights during this period. The fishery could not operate during the December dark of the moon phase due to very low water levels. A mark recapture study to estimate the efficiency of the fishery was carried out. Three hundred and two eels were tagged and released in the mouth of the river upstream of the fishery. Sixty eels were recaptured giving an efficiency rate of 20%. This study was carried out on 2 separate nights during the late October run and it is hoped to repeat the study in 2014 to confirm the result. Morphological measurements (length; weight; eye diameter; pectoral fin length etc.) were taken to determine life stage and estimate maturation.

Salmon and Sea Trout Programme 2013

In order to support national salmon management legislation, which is underpinned by scientific advice provided by the Standing Scientific Committee for Salmon (SSCS), IFI carry out annual assessments of salmon populations through catchment wide electro-



fishing, assessment of salmon runs at partial fish counter sites and the collection of biological data on adult salmon populations.



Figure 34. Electrofishing on the River Fane 2013

The objective of the catchment-wide electro-fishing (CWEF) programme is to determine the abundance of juvenile salmon in a catchment (as an indicator of adult salmon presence), where no data on salmon status are available. If the recorded abundance of juvenile salmon exceeds the threshold catchment average value of 17 salmon fry (per five minute electro-fishing) as computed previously by the SSCS, management then have a mechanism to open rivers for catch and release angling to provide a direct estimation of salmon stock size. Catchment wide electro-fishing was completed in 34 catchments in 2013 to assess abundance and distribution of salmon fry. A total of 787 sites were sampled. In the first six years of the programme (2007-2012), 274 catchment surveys in 130 catchments have been undertaken comprising 5,745 individual site surveys.

Generally there was a good correlation between the SSCS scientific assessment of attainment of salmon Conservation Limit (CL), the catchment-wide electro-fishing results and rod catch or counter data. Five rivers predicted not to have a salmon surplus in 2013 based on SSCS salmon model outputs, but where an average salmon fry index exceeded 17 over the 2007-2012 period, were recommended for opening on a catch & release angling basis in 2014.

Catchment wide electro-fishing is also valuable in providing catchment managers with detailed information on salmon fry distribution and abundance. The absence or low density of salmon fry may be related to water quality issues, obstructions, or habitat damage and areas of low abundance can be investigated. These data are used to target any remediation works that may be required.

A Passive Integrated Transponder (PIT) tagging programme is on-going on the River Boyne to assess fish counter efficiency as the counter at Blackcastle weir only counts part of the adult salmon run. An unquantified proportion of the salmon run ascends uncounted over the "open" part of this weir. Traditional draft net fishermen, under the supervision of IFI staff, sampled salmon in the tidal portion of the catchment in the summer of 2013 and 200 fish were tagged of which 25 of these salmon were also radio tagged. Three years of PIT and radio tagging data have been collected and in 2014 the data will be used to develop a raising factor to provide a more robust estimate of salmon passing over the uncounted section of the weir at Blackcastle for the upstream counts on the River Boyne.

Sampling and tagging of salmon on the River Dee, scheduled as part of an assessment of River Dee fish counter efficiency, was not undertaken due to the high water temperatures during late summer of 2013. Salmon scales were collected and analysed for life history information from the commercial fishery on the Munster Blackwater and River Suir and rod





Figure 35. Catchment-wide electrofishing results (5 year mean salmon fry per 5 minutes electrofishing) for catchments surveyed in 2013 with river status during 2012.

fisheries on the Owenmore River (Connemara) and Sneem River (Co. Kerry). Salmon stock assessment surveys were conducted on the Feale and Owenmore River catchments in 2013 and individual survey reports will be completed in 2014.

Sea Trout

The 4 year INTERREG (Innovation and Environmental Regions of Europe) funded Celtic Sea Trout project (CSTP) undertaken by IFI in partnership with research agencies primarily based in Wales, to provide information on sea trout in the Irish Sea, was completed in 2013. The project aims were to understand and describe sea trout stocks in the Irish Sea and thereby to enhance sea trout fisheries and strengthen their contributions to quality of life, to rural economies and to national biodiversity. Within the project, studies were conducted on the genetics and microchemistry of sea trout to provide stock discrimination tools. Baseline information was collected on age and growth, feeding, sex ratio and other biological characteristics to provide information for management of sea trout populations. The potential use of sea trout as an indicator of climate change was also investigated. Increasing the limited knowledge base about the ecology of sea trout in the Irish Sea was a primary deliverable and sampling concentrated on this aspect of the



project. Sampling and analysis was completed in 2013 and the final technical report will be completed in 2014.



Figure 36. Rod Caught Sea Trout

The National Sea Lice Monitoring Programme, conducted since 1991, involved sampling of sea trout for sea lice infestation in twelve rivers off the western seaboard in 2013.

The long-term monitoring of sea trout stocks on the Tawnyard sub-catchment of the Erriff River continued in 2013. This monitoring programme has been on-going since 1984 and provides one of only two long-term sea trout stock assessments available in Ireland.

Environmental Rivers Enhancement Programme (EREP)

The second five year Environmental Rivers Enhancement Programme (EREP) commenced in 2013. This collaborative programme between the Engineering Services Section of the Office of Public Works (OPW) and IFI had two objectives:

- To carry out capital works programmes on drained salmonid rivers to increase the production of these fisheries and enhance the environmental biodiversity of the river corridor
- To introduce new drainage maintenance practices whereby standard drainage maintenance would have a less severe impact on the biota of river corridors.

Funding for this programme was provided by the OPW, and all river enhancement plans are designed by IFI personnel with works being carried out by OPW staff. Supervision of the works along with monitoring of their effectiveness is carried out by IFI Research staff. IFI staff also designed more "eco-friendly" maintenance operations and ran training courses for OPW personnel in relation to the implementation of these programmes. The project undertakes to annually implement capital works projects on 25 km of OPW drained channels and 75 km of maintained channel enhanced in a more eco-friendly way.

Planning also commenced in relation to allowing migratory salmonids access to the River Dodder where a series (8) of large manmade weirs have confined salmon and sea trout to the lower reaches of this river in Ballsbridge for over 200 years. This is a collaborative project, involving Dublin City Council, OPW and IFI. It will be accommodated as part of a major flood relief programme currently underway for the lower Dodder valley.




Figure 37. One of the many large man made weirs on the River Dodder which are impassable to migratory salmonids.

Micro-satellite DNA Studies of Irish Trout Stocks

Detailed genetic studies on brown trout populations have been carried out on a number of Ireland's premier brown trout fisheries including Loughs' Corrib, Derg, Ennell and Mask and two large riverine systems, the Boyne and Suir Catchments. This year an additional study was completed in relation to the Lough Sheelin Catchment in Co. Westmeath to determine the genetic make-up of populations of brown trout within these systems.

These studies have proved to be invaluable in fishery management terms. They have provided IFI for the first time, with information on the dynamics of different sub-populations, the relative contribution of tributary stocks to lake or river main stem stocks.

They suggest that long term stocking programmes with hatchery fish have had no influence on the genetic make-up of wild populations. They indicate that the current hatchery programme on Lough Corrib makes no contribution to stocks. The Lough Sheelin study illustrates that the hatchery on this water in the past made no contribution to the trout population.

In the long term, these studies will prove invaluable in terms of both identifying unproductive sub catchments and evaluating the effectiveness of wide scale river enhancement programmes.

Three additional programmes in this area are currently underway. Baseline data is being collected and laboratory analysis is commencing in 2014. The three particular areas are the Moy Catchment, the "Dublin Rivers" (Liffey, Dodder and Tolka) and the mid-Shannon area (all rivers and trout lakes (including Lough Ree) from Carrick-on-Shannon south to and including the River Suck. These studies are being carried out by IFI in collaboration with Queens University Belfast (QUB).





Figure 38. Graphical representation of STRUCTURE programme analysis of the Lough Sheelin baseline river samples - First level population structuring. Different colours represent distinct genetic lineages/groups

Waterways Ireland Support

IFI are contracted by Waterways Ireland (WI) to provide fisheries management, aquatic plant management and Water Framework Directive (WFD) monitoring on the Royal and Grand Canals, the Barrow Navigation and the Shannon-Erne Waterway. The programme reflects the statutory obligations of Waterways Ireland and its objective of providing a quality waterways habitat commensurate with its use by a wide diversity of stakeholders.

IFI carried out WFD surveillance monitoring of the Royal and Grand Canals and the canalised section of the Shannon-Erne Waterway in 2013. Canals are identified as Artificial Water Bodies under the WFD and they must achieve Good Ecological Potential, as opposed to Good Ecological Status, which applies to natural water bodies such as rivers and lakes. Ecological Potential is assessed using a combination of biological, physico-chemical and hydromorphological data. This primarily involves sampling of macroinvertebrates, aquatic plants, water quality and habitat features. The canals traverse the Eastern, South-Eastern and Shannon River Basin Districts and a total of 42 sites were monitored in 2013. All sites were assessed for physico-chemistry on four occasions in 2013. An aquatic plant survey was carried out in August and a subset of sites was sampled for macroinvertebrates in April. IFI also monitored a number of feeder streams to the canals during 2013. These feeders can be a source of intermittent contamination and their monitoring is an important tool in identifying pollution sources to the main channels.





Figure 39. IFI staff assessing dredge samples for the presence of Asian clams on the Royal Canal in 2013

Aquatic plant management and invasive species surveys were conducted along the entire length of the Royal and Grand Canals. Surveillance monitoring for Asian clam (*Corbicula fluminea*) was carried out on those westerly reaches of the Royal and Grand Canals nearest the River Shannon, and at designated sections of the Barrow Navigation and Shannon-Erne Waterway. To date, this invasive species has not been recorded in these waters. Further control measures were carried out on the section of the Grand Canal where control of the invasive plant, New Zealand Pigmyweed (*Crassula helmsii*) was conducted. Biomass of the plant (which had exhibited some minor re-growth in 2012) was further reduced by these operations. Monitoring will continue throughout 2014. Treatment programmes for a variety of invasive aquatic and riparian plant species such as Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*) also continued. Biosecurity surrounding amenity use remains a priority, and further successful measures were demonstrated and implemented at several angling events.

Results of fish stock assessments indicate that stocks remain generally healthy. Geographical differences in fish community structure, identified in previous surveys remain evident, with excellent stocks of bream and roach recorded from sections of the Grand and Royal Canals respectively.

Fisheries Management for Waterways Ireland

Fish stock enhancement operations were targeted at those urban fisheries in the Dublin area which hosted angling competitions during the year. To mitigate the impact of routine maintenance and in stream works, fish were relocated to four sites. Where encountered, and under licence from the National Parks and Wildlife Service (NPWS), crayfish were also removed to safety. In addition to directly protecting resident fish shoals, these events also enable IFI staff to examine drained waterways for the presence of unusual invasive or problematic plant and animal species.

Laboratory Services

The IFI Laboratory in Swords, Co. Dublin offers a nationwide environmental testing and support service for regional IFI staff and external clients, such as WI. In addition, the laboratory carries out statutory analyses for IFI fish farm discharge licences. During 2013, 2,815 water samples were analysed.

During 2013 staff began developing methods to analyse trace element composition of fish scales and otoliths using a new technique called Laser Ablation Inductively Coupled Plasma



Mass Spectrometry (LA-ICP-MS). This technique has the potential to answer many questions which may help to refine and improve current fisheries management practises.

A pilot project "Investigating recruitment patterns of Lough Mask brown trout using LA-ICP-MS" commenced in early 2013. In order to test the efficacy of the LA-ICP-MS technique, attempts were made to characterise the main spawning streams using fish scales and to assign Lough Mask brown trout, sampled in summer 2012, to their natal streams. The timing of movement of these trout populations from natal stream to lake was also examined. The results suggest that there is great potential for using this technique to be able to answer questions on the recruitment patterns of fish. From the various samples available, it was possible to assign many fish to their natal streams. Of those fish that could not yet be assigned to their natal streams, it is believed that this is due to a lack of data rather than any short comings in the technique. Further sampling and subsequent characterisation of all of Lough Mask's natal streams is planned for 2014.

Bass Research

IFI has responsibility for the management and development of bass angling and the conservation and protection of bass. Bass is an extremely important and valuable marine sport angling species in Ireland. The steep decline in bass stocks in Ireland in the mid-1970s resulted in a severe deterioration of the renowned bass angling resource and the cessation of the commercial fishery in order to conserve stocks through the Bass (Conservation of Stocks) Order, 1990. Since then, bass have been regarded solely as an angling species and are restrictively managed. Research carried out by IFI in 2012 highlighted the catch-and-release nature of the Irish angling fishery and the fact that the numbers of bass retained by anglers is low.

IFI has been working on bass since the 1970s when Kennedy and Fitzmaurice (1972) undertook some important baseline work on its ecology. Since then bass studies have continued to be carried out by scientists within the inland fisheries sector and in 2013, following the preparation of a draft policy document on bass, IFI formally initiated its National Bass Programme. It aims to provide stock assessment information, evaluate stock status and provide scientific advice for conservation management. In 2013 the programme delivered several elements of this programme. Juvenile bass (fry) assessments in several large estuaries, a repeat of work carried out jointly with the Marine Institute from 1996-2008 inclusive, indicated low stock densities in 2013. Adult bass data in the form of scale collections from individual anglers and a roll out of a voluntary logbook scheme was initiated. Bass age and growth data and returns from anglers will be reported in 2014.



Figure 40. National Bass Programme Logo

The pilot study on the microchemistry of bass scales and otoliths to investigate the potential of developing this technology to study bass migration patterns and possibly for



stock discrimination yielded some encouraging results. Work will continue on this in 2014 to refine the technique and explore the application further.

IFI is working with University College Cork to study the migration of bass in Cork Harbour using hydro-acoustic tags which have been attached to rod caught pre-adult and adult bass. Further tagging is planned in 2014 in addition to increasing the number of listening stations in the environs of Cork Harbour.

IFI's Fish Farms

The aim of the IFI fish stock management programme is to restore fish populations in those fisheries which have been affected by pollution or fish kills and to enhance the angling status of a fishery. The IFI fish farms in Westmeath and Tipperary rear brown trout and rainbow trout.



Figure 41. Newly hatched fry in Roscrea Hatchery

The farms operate commercially and in 2013 provided over 280,000 fish for stocking to both IFI managed lakes and private angling clubs.

IFI continued with its commitment to providing greater numbers of triploid trout for restocking, and 95% of its fish available for sale are triploid stocks.

As part of IFI's conservation role, over 200.000 wild brown trout fry which had been hatched in the Mullingar site were returned to the wild.

Further enhancement work was undertaken to upgrade both fish farms during 2013. This included the replacement of troughs and pipe work in the hatchery buildings, as well as the installation of a computer controlled feeding system for the fry, which will reduce labour requirements on the farms.



Business Development

Business Development – An Introduction

A core goal of Inland Fisheries Ireland (IFI) is to increase the number of citizens and visitors to Ireland participating in recreational angling. IFI recognises the vital role that anglers and angling clubs play in the area of fisheries development and angling tourism. It has identified the empowerment of its stakeholders as a key business objective and has designed its programmes to ensure that these stakeholders are facilitated and partnered to assist in the strategic development of fisheries, and the promotion and development of angling. The Business Development Division of IFI concentrates its efforts in knowing our stakeholders and visitors and increasing the number of anglers fishing in Ireland through various programmes, some of which are outlined below.

In July 2013, the Socio-Economic Study of Recreational Angling in Ireland (SESRAI) was launched by the Minister of State at the Department of Communications, Energy and Natural Resources, Mr Fergus O'Dowd TD. This study, commissioned by IFI to establish baseline information in relation to the number of anglers in Ireland, was carried out by Tourism Development International (TDI). It established that in 2012 Ireland had 252,000 domestic anglers (7% of the adult Irish population), 41,000 Northern Irish anglers and 113,000 overseas anglers. In total, 406,000 people went fishing in Ireland in 2012. Including indirect and induced impacts, ϵ 755 million was spent on angling in Ireland in 2012. Of this, the total tourist expenditure was estimated at ϵ 280 million. Angling was also shown to support 10,000 jobs in Ireland. The study is available for download from www.fisheriesireland.ie.The results of the SESRAI and other on-going surveys will inform IFI's marketing and angling development strategy into the future.

In support of this goal IFI continues to work with its tourism partners, Fáilte Ireland and Tourism Ireland to promote Ireland's angling resources. IFI also supports local authorities, tourism groups and angling providers to, *inter alia*, prepare marketing plans, and marketing material and to attend shows and has developed the 'Angling in Ireland' brand which will be further rolled out on an all-Ireland basis in conjunction with our sister agencies in Northern Ireland; The Loughs Agency and the Department of Culture, Arts and Leisure (DCAL) during 2014. IFI has also become an executive council member of the Irish Tourism Industry Confederation (ITIC) and a partner in the Lakelands and Inland Waterways Tourism Group.



Figure 42. An Taoiseach Enda Kenny TD, launches the Mayo Guide, Minsters of State Fergus O' Dowd and Tom Hayes TD's on the River Suir, and Minster O' Dowd TD, Deputies Michael McNamara, Emmet Stagg, Dara Calleary and Eamon O'Cuiv and Dr Ciaran Byrne CEO of IFI at the launch of the Socio-Economic Study of Recreational Angling in Ireland.



The Midland Fisheries Fund (MFF) was introduced by IFI in 2013 to provide funding to clubs and organisations in the Midland Permit Area for the development of sustainable angling and angling habitat. The fund was created from angler contributions set aside from the Permit Income received by IFI in the Midlands Fisheries Group permit area. The Salmon Conservation Fund continues to distribute much needed funds for the conservation of salmon stocks and habitat to a range of angling clubs up and down the country.

The support of our Minister Mr Fergus O' Dowd TD, An Taoiseach, Mr Enda Kenny TD and other politicians has been invaluable in drawing media attention to the inland fisheries resource.

Education and Awareness

IFI is committed to a number of education and awareness programmes which focus on education and dissemination of information on the inland fisheries resource, fisheries habitats, conservation issues, commercial salmon fisheries and the sport of angling.

During 2013, in addition to the main programmes outlined in this report, a variety of initiatives helped to raise awareness of the fisheries resource and its importance in terms of biodiversity, tourism, recreation and economic benefit. Art competitions, television and radio appearances, press releases, angling events and on-line resources and magazines all contributed to IFI's public relations activities.

Something Fishy

The Something Fishy education programme is now in its 10th successful year and is run in collaboration with the Blackrock and Monaghan Education Centres who coordinate the programme with other education centres around the country. It is aimed at 5th and 6th class primary school students with the objective to teach students about Irish fish species, their local environment and habitat and to interest them in angling. Eight education centres participated in the programme in 2013. The theme for the 2012/2013 academic year class project was once again invasive species which is a significant and topical area. Further information is available at www.somethingfishy.ie

8 animations supporting the Something Fishy lesson plans were uploaded to the Something Fishy YouTube channel and IFI footage of brown trout spawning activity and the Something Fishy prize winning entry were also shared on YouTube.



Figure 43. Ayr Hill National School – National Something Fishy Champions 2013



Ayr Hill National School, Ramelton, Co. Donegal were the winners of the national 'Something Fishy' competition 2013, with their project 'The River Leannan - under threat from Invasive Species'.

Fisheries Awareness Week (FAW)

Fisheries Awareness Week (FAW) is an annual national event hosted by IFI during the month of May, now in its 5th year. It aims to encourage adults and children who may never have fished before to take up a new hobby, to work with angling clubs and organisations to promote all types of angling and to promote the role the fisheries service has in protecting and conserving Ireland's wonderful fisheries resource. Further information is available at <u>www.faw.ie</u>



Figure 44. Siofra and Fionn Kelly assist illusionist Keith Barry at the FAW 2013 photo shoot

Well known TV personality and illusionist Keith Barry played an important role in launching and promoting FAW 2013. Among the 66 events promoted around the country as part of FAW 2013 were 16 sea angling trips, 16 trout angling trips, 10 coarse angling trips, 2 pike angling trips and 4 salmon angling trips. In addition, one event specifically targeting anglers with disabilities was held. All of these events were provided free of charge to participants. Events took place across 18 counties at a variety of stocked fisheries, club and syndicate waters on salmon and trout fisheries, state lakes, canals, a golf course, the sea shore and charter boats.

Angling for Youth Development Ireland (AYFD)

As part of IFI's promotional remit and to expand its education and outreach role, IFI continued to develop Angling for Youth Development Ireland, a programme which has positive benefits for angling in Ireland and for local communities. The two pilot hubs established in 2012 in Waterford city and Fermoy continued working with a range of youths from schools, community areas and special needs partnerships. The volunteer led hubs worked with groups of up to 34 anglers and were well supported by a number of qualified coaches from local clubs. Two new hubs in Listowel, Co. Kerry and Drogheda, Co. Louth were initiated in 2013 and expressions of interest were received from potential hub sites in counties Limerick, Kildare, Meath and Tipperary.

Dublin Angling Initiative

The Dublin Angling Initiative (DAI) is IFI's youth outreach programme in Dublin. In 2013, 689 young people participated in DAI's 3 day summer angling courses and various other



youth angling events held throughout the year. On these courses young people learnt a variety of skills such as knot tying, casting, handling and the releasing of fish safely. These courses consist of a day's coarse fishing on the Grand Canal, Greystones beach for sea fishing and Aughrim's 'Angling for All' facility for game fishing. The 10th annual competition for youngsters who participated in courses was held in October in Aughrim which proved to be a popular event with prizes won by all including a perpetual DAI trophy for the winning team.

One of the highlights of the year was a record ferox trout caught by Eric Cahill (aged 16), one of the participants who was fishing Lough Ramor with the DAI and caught this fish of a lifetime.



Figure 45. Eric Cahill with IFI's Des Chew and his specimen Ferox Trout from Lough Ramor

Marketing and Promotion

IFI operates a number of programmes to ensure that angling is marketed both in Ireland and internationally. Working with various tourism groups, public authorities and individual angling holiday providers, IFI has an integrated approach through IFI shows, journalists, on-line and promotional activities.

Shows

In 2013 IFI participated in 18 promotional trade shows, angling fairs and consumer exhibitions throughout Ireland, Europe and the US. The main purpose of these shows is to promote angling in Ireland, increase the numbers of anglers visiting Ireland to fish, to support the industry in promoting itself and to liaise with national and international media. In addition to 4 domestic angling fairs, IFI staff attended shows in Germany, France, the UK, the Netherlands, the US and for the first time in Italy. High quality promotional stands displayed the *Angling in Ireland* brand and at a number of shows IFI staff gave 30-45min presentations on angling in Ireland.

Journalists & Articles

IFI staff work closely with our tourism partners, angling service providers and a range of top international angling journalists to ensure that Irish angling gets significant coverage in some of the most popular angling publications worldwide. In 2013, IFI staff assisted directly in organising 14 separate journalists trips to Ireland and participated in other trips



organised by our tourism partners. The total number of trips is down from the previous year's figure as Tourism Ireland and Fáilte Ireland have refocused on other major initiatives including the Wild Atlantic Way. Nonetheless, numerous high quality articles have already been published as a result of these trips with more to follow in the coming months.



Figure 46. Double page spread from Total Fly Fishing magazine

A survey of the angling press in 2013 showed 38 articles which were published in print as a direct result of IFI supported media visits. Due to the difficulty of monitoring all angling media in all countries the actual amount of coverage received is likely to be higher. The printed articles were supplemented by 2 DVDs showcasing some of the highlights of angling in Ireland. The total value of the articles and DVDs in terms of advertising equivalency is estimated at \in 379,435. In addition, there were also numerous web based articles and blogs produced by journalists while fishing in Ireland ensuring that our web presence remains strong.

Promotional Material

In marketing Ireland as an angling tourism destination IFI are in constant competition with many other countries to attract the travelling angler. Anglers research extensively when choosing a holiday destination, often using multiple media forms to come to a decision and it is critical to have the right combination of quality promotional material and web and social media presence available to ensure that Ireland remains in focus. During 2013 the Business Development section continued to expand and improve the suite of promotional literature used to promote both domestic and overseas angling tourism. The primary brochures completed this year were:

- Sea Angling Guide (Clew Bay Hags Head), (Mullaghmore Clew Bay)
- Shannon Sea Angling Guide
- Boyne Valley Angling Guide (French)
- River Feale Angling Guide
- North East Angling Guide
- Guide to Angling Bye Laws
- Lough Conn Angling Guide.



All brochures are made available for download or online reading at the IFI website and each new publication is promoted through our social media channels. In addition Irish TV covered the launch of the Mayo Angling Guide and this coverage was made available on YouTube. 8 animations supporting the Something Fishy lesson plans were uploaded to the Something Fishy YouTube channel and IFI footage of brown trout spawning activity and the Something Fishy prize winning entry were also shared on YouTube.



Figure 47. Sample of promotional literature produced in 2013 by IFI

State Fisheries Management

Licensing of State Fisheries

During the 2013 season, 85 fisheries were under licence to 46 angling clubs/ organisations generating over €55,000 in licence fees. 33 clubs/ organisations have secured longer term licences ranging from 3 to 10 years duration depending on the nature of the fishery, fishery management and fishery development plans. IFI began to offer longer term licences in 2013 to facilitate longer term fishery management planning and development by clubs and also to facilitate clubs seeking LEADER funding to develop fisheries. Fisheries available for tender for the 2014 season were advertised on-line and the incumbent clubs were contacted to inform them of the tender process.

Fisheries Management and Development

In Sligo, IFI staff assisted the Sligo Anglers Association in carrying out weed cutting on Glencar Lake (a State fishery managed under licence by the Sligo Anglers Association), for the second year running. IFI supplied specialised cutting 'V' blades and a boat and coxswain to assist in the works. The club supplied the labour to collect and dispose of the weeds after they were cut and as in 2012, the weed cutting was successful.



Two clubs managing State fisheries under licence received funding through the Salmon Conservation Fund (SCF) to carry out development works in 2013. The Kilbride Angling Club received funding of \in 5,000 to carry out phase 3 of improvements to the main channel of the Kells Blackwater. Creeslough & District Anglers Association received funding of \in 13,800 for the Lackagh Catchment Enhancement Project and this is now complete.

Redundant fishing right burdens were removed from folios in six instances and four further title research queries were received and investigated as well as numerous general title queries by telephone.

A project involving the Geographic Information System (GIS) mapping of State owned fisheries in conjunction with the Property Registration Authority Ireland continued in 2013 and five test case rivers were successfully examined for ownership status.

Salmon Management

Salmon Conservation Fund

The Salmon Conservation Fund (SCF) was established in 2006 to provide funding for the rehabilitation of salmon rivers in Ireland with priority given to rivers which are in special areas of conservation (SAC) that are not meeting their Conservation Limit (CL). The funds are generated from the sale of angling and commercial salmon licences which represents a major contribution by licence holders to wild salmon conservation. The revenue generated from the SCF is reinvested to promote the recovery of our salmon stocks and habitats taking into account project feasibility, funding availability and value for money considerations. IFI is tasked by the Department of Communications, Energy and Natural Resources (DCENR) with co-ordinating the funding, and the River Basin Districts (RBD's) and angling clubs and federations are tasked with implementing approved projects on the ground.

The SCF is managed by a committee comprised of fisheries managers, scientists and angling representatives who assess and make recommendations on project applications received from qualifying applicants. Projects are assessed and scored based on the river's conservation limit status, its water quality (Q-value) and the maximum potential benefits of each project to the river.

For 2013, 26 SCF projects to a value of \leq 397,054 were approved or provisionally approved. The projects included fish passage improvements, spawning enhancement, instream works, river bank protection, fencing, riparian zone improvement and national studies towards salmon conservation. These projects were allocated funding from revenue generated and collected throughout 2012 from angling and commercial licence sales. \leq 541,000 was collected at the end of 2013 and will be allocated to qualifying salmon conservation projects in 2014 with works to be carried out in 2014/2015.





Salmon and Sea Trout Tagging Scheme

The principal aims of the Wild Salmon and Sea Trout Tagging Scheme are to provide a means of collecting accurate nominal catch statistics and estimates of salmon and sea trout stock exploitation, to develop best management strategies and to ensure these species are exploited in a sustainable manner on a national, river basin, Fishery District and river basis.

Under the regulations all fishermen must affix a coded tag to each salmon (or sea trout over 40 cm) that they catch and retain. A logbook entry must then be made giving details of each fish caught. All logbooks and unused tags must be returned to IFI RBD offices as set out in the Wild Salmon and Sea Trout Tagging Scheme regulations.

This data is entered into a national database by IFI staff and following this, the validation, collation and analysis of the data is performed to produce the annual Wild Salmon and Sea Trout Statistics Report. These reports provide valuable information to fisheries managers, scientists, policy makers and legislators and assist in the design and implementation of policies and strategies for the conservation of salmon and sea trout stocks in Ireland. The most recent report (2001 to 2013) can be downloaded from the <u>www.fisheriesireland.ie</u> website.

In 2013, based on scientific advice, management recommended the closure of salmon and sea trout fishing in 59 rivers¹ and the opening of 91 rivers² (including catch and release options). A system of brown gill tags was in operation in selected rivers where it was considered necessary to ensure river based salmon angling quotas were not exceeded.

Salmon Catch

The 2013 Wild Salmon and Sea Trout Statistics show that the total number of salmon caught by all methods (including catch and release) was 42,985 salmon and 1,797 sea trout (over 40cm) respectively, which represents a decrease of 3.4% on the total salmon catch recorded in 2012 (44,497) and a decrease of 36.3% on the total sea trout catch recorded in 2012 (2,822). 2013 proved yet another challenging year for anglers while commercial fishermen witnessed some of the most optimum fishing conditions since the introduction of single stock management of rivers. Fishing conditions were difficult with high water levels and salmon moving up river then dropping back on tides providing commercial fishermen with good opportunities to catch their quota on many rivers.

The 2013 commercial catch was 14,125 salmon and 65 sea trout (over 40 cm) which represent 78% of the Total Allowable Catch (TAC) of 18,276 fish allocated to the commercial fishing sector. The biggest landings of commercial salmon catches in 2013 were in Co. Kerry on the River Laune with 2,754 salmon (15.1% of the commercial catch), in Co. Kilkenny on the River Nore with 2,341 salmon (12.8% of the commercial catch), in Co. Cork on the River Blackwater with 1,644 salmon (9% of the commercial catch), in Co. Cork on the River Lee with 1,293 salmon (7.1% of the commercial catch) and in Co. Limerick on the River Feale/ Cashen with 1,163 salmon (6.4% of the commercial catch).

The 2013 angling catch was 28,860 salmon and 1,732 sea trout (over 40cm). Of the 28,860 salmon caught by anglers, 18,178 were harvested and 10,682 subsequently released. Commercial fishermen caught 33% of the salmon catch in 2013, compared to 23% in 2012 and recreational anglers caught 67% in 2013 compared to 77% in 2012.

¹ Conservation of salmon and sea trout bye-law no. 313-2012, 315-2013,

² Conservation of salmon and sea trout bye-law no. 901/902/-2012, 903/904/909/910/911/314-2013



Salmon Catch	2012	2013
Angling and Commercial Total angling and commercial salmon catch	44,497	42,985
Commercial Total commercial salmon catch data	10,319	14,125
Angling Total angling salmon harvest Total angling salmon caught and released	22,287 11,891	18,178 10,682
Total Angling Salmon Catch	34,178	28,860

Table 1. Details of 2013 Salmon catch by all methods compared to 2012

Licence Sales & Log Book Returns

19,109 salmon rod licences were sold to anglers from forty six different countries which represents a decrease in sales of 2.45% over 2012. The majority of licence sales (65%) were to residents within Ireland, 11% to Northern Ireland and a further 9% to UK residents with under 10% coming from France (5%) and Germany (3%). Anglers returned 14,035 logbooks in 2013, with a national return rate of 73%, down from 75% on 2012 logbook returns. Table 3 shows the summary statistics for the total numbers of rod licences sales from 2001 - 2013 and the numbers and percentage of logbooks returned by salmon anglers.

Year	Licence Sales	Logbook Returns	% Return
2001	32,814	14,238	43%
2002	35,024	18,116	52%
2003	31,809	18,088	57%
2004	30,807	17,955	58%
2005	28,738	17,682	62%
2006	27,341	18,554	68%
2007	19,986	12,962	65%
2008	20,061	13,917	69%
2009	18,314	12,890	70 %
2010	17,983	12,813	71%
2011	19,899	14,414	72%
2012	19,588	14,597	75%
2013	19,109	14,035	73%

Table 2. 2001-2013 Salmon and Sea trout angling licence sales and logbook returns



Licence Type	Annual A	District B	Juvenile P	21 Day R	1 Day S	Foyle Area W	Special Local x	Total Angling
Cost	€100	€56	€10	€40	€20	€80	€24	
Volume of sales	3,623	6,713	1,451	4,286	2,207	498	331	19,109
Total sales value €	362,300	375,928	14,510	171,440	44,140	39,840	7,944	€1,016,102

Table 3. 2013 Licence Sales by licence type and cost

Bye-laws

The principal bye-laws introduced for the 2013 season were for the Conservation of Salmon and Sea Trout stocks. Bye-laws were enacted at both national and local level to facilitate bag limits for salmon and sea trout angling (Bye-laws No. 901 of 2012), the opening of fisheries on a catch and release basis (Bye-laws No. 902 of 2012, 903, 314, 904, 905, 909, 910 and 911 of 2013), and the closure of certain fisheries where it was considered necessary to afford adequate protection to salmon and sea trout stocks (Bye-law No. 313 of 2012 and 315 of 2013).

Further restrictions were set in place for all angling methods on certain closed and catch and release fisheries prohibiting the use of any fish hooks, other than single barbless hooks, and the use of worms as bait in angling where it was considered necessary to afford additional protection measures to salmon and sea trout stocks (Angling Bye-law No. 907 of 2013).

Commercial fishing for salmon and sea trout detailing the rivers where commercial fishing was permitted along with the opening and closing season was set out in the various Byelaws (Bye-law No. 906 and 912 of 2013).

The above Bye-laws were proposed by IFI, based on best management and scientific advice and consultation with stakeholders, and then submitted to the Minister for Communications, Energy & Natural Resources for consideration. Following approval and signing by the Minister, these Bye-laws are enforced by IFI field staff. A list of the relevant Bye-laws enacted for 2013 is provided at Appendix 16.

Business Development & E-business

Stakeholder Facilitation and Joint Working

IFI has a number of programmes to facilitate and empower stakeholders to undertake conservation, protection, development and promotion of the inland fisheries and sea angling resources.

IFI hold regular meetings with angling federations, angling providers, LEADER (Liason Entre Actions pour le Development d'IEconomie Rurale; a Rural Development Programme) companies, County Councils and tourism and development groups. Staff have been available to attend AGMs, information sessions and workshops. Significant areas addressed during 2013 include fisheries legislation, development fund scheme application workshops and information sessions, biosecurity and angling development.



The Midland Fisheries Fund (MFF)

In 2013, IFI introduced a pilot fisheries development scheme through which angling clubs and organisations can access funding to undertake sustainable development works in the Midland Fisheries Group permit area. The MFF was created through angler contributions set-aside from the permit income received by IFI in the Midlands Fisheries Group area. the applicable area and Full details of the scheme are available at www.fishinginireland.info; €50,000 was available through the MFF for 2013. 9 projects were allocated funding by IFI and works were undertaken to provide access to fisheries for disabled anglers, car parking, in-stream works and rehabilitation, stock and genetic surveys, boat harbour facilities, spawning enhancement and site development.

Social Media

As the use of technology increases it is clear that new ways to connect with potential visitors using social media and word of mouth marketing are essential for Irish tourism businesses. A recent Google survey reported that approximately 40% of travellers said social networks influenced their travel planning, while 50% based their travel plans on other people's reviews and experiences. To cater for this, angling reports are posted to the IFI blog at www.fishinginireland.info and tweeted to our followers on Twitter. Connections made with illusionist Keith Barry resulted in his launching Fisheries Awareness Week in 2013 and popularising angling, pike, salmon and sea angling at a number of venues over the year. IFI's posts on angling in Ireland and other announcements had the potential to be seen by a great many more users, almost 900,000 in total. Fisheries Awareness Week posts and adverts were seen by as many 101,000 people.

Websites and Social Media

IFI's website <u>www.fishinginireland.info</u> plays an important role in connecting domestic and tourist anglers with service providers such as accommodation, ghillies, guides and hire contacts in the angling sector and in 2013 over 103,000 referrals were made to service provider websites, an increase of over 20% on the previous year. 2013 also saw the roll out of the on-line permit sales facility which is currently selling permits required to fish in the Midland Group Fisheries area.

IFI Telephone Hotline LoCall 1890 34 74 24

IFI operates a 24 Hour telephone Hotline on 1890 34 74 24 through which the public can report any incidents of pollution, poaching and the presence of invasive species. During 2013, 521 calls were received through the Hotline (which was a 9% increase on the 478 calls received in 2012). The most common reason to call the hotline number was to report an illegal fishing incident (245). 116 calls related to pollution incidents, 6 calls reported the presence of invasive species and 154 were general queries.

FishIE – The IFI Fisheries Information App

Work concluded in 2013 on the IFI smartphone application for anglers FishIE. This app became available in August 2013 free of charge to domestic and tourist anglers. Among its functions are maps to help anglers select angling venues, find angling service providers, record catches with geo-referenced notes and photographs and keep up to date with current fisheries regulations.



Ø	SEARCH	
0	FISH IDENTIFIER	
0	ANGLING DIARY	
0	SETTINGS	

Figure 49. Screenshot of IFI FishIE app

Sponsorship

The IFI Sponsorship scheme provides supports for anglers of all ages to participate in local, national and international competitions and support for angling competitions which bring essential income to rural and peripheral communities, and environmental and bio-security initiatives. In 2013 many angling clubs and federations were supported directly or through Service Level Agreements. IFI were the chief sponsors of the prestigious World Youth Fly Fishing Championships organised by the Trout Anglers Federation of Ireland (TAFI) and fished over 4 days in July 2013 on mixed River and Lake venues north and south of the border.



Figure 50. Participating teams at the opening of the TAFI World Youth Fly Fishing Championships

The IFI Sponsorship scheme received sponsorship applications from 71 different clubs and organisations for 78 unique events in 2013. 64 events were awarded support in the form of finance or staff resources or both. 13 events availed of IFI equipment support in the form of weighing scales, biosecurity equipment and fishing rods. 5 events were also awarded promotional supports.

Donegal Angling

In 2011 IFI initiated a pilot project to help market the Donegal angling tourism product. In 2013 the <u>www.Donegalanglingholidays.com</u> website was developed as a one stop shop for angling holidays. Donegal Angling Holidays have participated at IFI and Tourism Ireland supported angling shows and developed holiday packages.



Human Resources

Human Resources – An Introduction

The overall objective of the Human Resources Division as set out in Inland Fisheries Ireland's 2013 Business Plan is to provide a best practice, user-friendly and comprehensive set of Human Resource services and systems for Inland Fisheries Ireland (IFI) that enables it to meet the demands of its Strategic Plan, the Government's programme for transformation of the public sector, the terms of the Croke Park and Haddington Road Agreements, and the National Recovery and Public Sector Reform Plans. From a health and safety perspective the objective is to provide a safe working environment for all staff, in line with best practice and in compliance with all relevant health & safety and employment legislation.

During 2013 the Human Resources Division focused on delivery in the following key areas; organisational development through the continued design of a revised operational structure in line with mandated staffing constraints dictated by the limitations of the Employment Control Framework (ECF), the provision of human resources, health and safety, and learning and development supports for the organisation. The Division was also responsible for overseeing and meeting IFI's responsibilities under the Freedom of Information Act (FOI Acts 1997 and 2003) and its Garda vetting programme.

2013 was again a challenging year for the Division, working in line with the restrictions imposed by the revised ECF. On July 1st 2013 the terms of the Haddington Road Agreement were implemented. These included a reduction in pay for certain staff and most notably an increase in working hours across the organisation. During 2013 IFI again met its targets and requirements in relation to these programmes while maintaining stable employee relations.

Staffing

During 2013 the overall staffing level in IFI was reduced from 323.1 members at the 31st of December 2012 to 314.1 at the 31st of December 2013. This represents an overall decrease of 40 staff since the formation of IFI in 2010 and an overall reduction of 126 in the sector since 2009. During 2013 IFI received sanction to introduce a limited Targeted Voluntary Redundancy Scheme. This resulted in three staff leaving the organisation in December 2013. The balance of the reduction occurred as a result of natural turnover and retirements.

The Government's embargo on recruitment in the public sector which commenced in 2009 remained in place during 2013. As in 2012, IFI was not in a position to engage in any external recruitment apart from the appointment of thirty two seasonal protection staff. Sanction was received for these appointments for a period of six months. This was an increase in the four month sanction which was granted in previous years. The recruitment was conducted centrally by the Human Resources Division, by way of open competition. The IFI Staffing level for 2013 is available at Appendix 24.

Training & Development

The IFI National Training Plan for 2013 was delivered throughout the year with the main emphasis being on the continued training of field staff in line with the strategic training plan for the period 2012 to 2015. This plan provides a schedule of training based on the operational and functional requirements of IFI and includes:

• Core IFI operational training modules such as the IFI Induction Programme, Fisheries Law, Conflict Management and Court Procedures



- Health & Safety, Corporate Compliance, and specific role related skills such as Rigid Inflatable Boat (RIB) Operations, Personal Survival training, Chainsaw and other machinery use
- Government and Business initiatives such as Performance Management training, Disability Awareness and Child Protection Awareness
- Leadership, management and professional training.

Staff completed training in key areas of performance management where changes and additions to the process were rolled out to all staff. Training in water safety skills, proficiency in RIB operations and competency in the use of vehicles and equipment was delivered to field staff as appropriate.

Overall, 30 separate training programmes were delivered for staff of IFI in 2013, over 1,543 training days, averaging 4.7 days per employee. The training cost for 2013 was calculated at 1% of payroll. However, the quality of the training provided has allowed the staff of IFI to work with improved safety, and more efficiently and effectively towards achieving the goals of the organisation and in providing a more professional and customer orientated service for our stakeholders. Full details of the programmes delivered are set out in Appendix 25.

Employee Relations

Stable industrial relations were maintained during 2013 despite the on-going difficult conditions in which IFI operates. Lines of communications on key issues were maintained with staff and trade unions. As in previous years the 2013 staff Corporate Day designed to update staff on business and related matters took place.

The Division continued the process of implementing and centralising HR management systems. A HR database system (SAGE) was introduced and the process of utilising this to centrally manage all human resource records has commenced.

The Division is responsible for the coordinated management of long term absenteeism. In 2013 the overall absenteeism level in IFI amounted to 2.57%.

Health and Safety

Health and safety management is integral to all of IFI's activities. The IFI National Safety Committee which was formed in September 2011 continues its proactive role of safety management and policy development for the organisation. The committee is comprised of elected staff representatives from the IFI regional offices, fish farms and head office, with management represented by the IFI Health & Safety Executive, the Head of Human Resources and the Head of Operations. The Committee met quarterly during 2013 and consults with management on all matters related to health and safety. The Lone Working Procedure and Buddy System which was developed by the Committee was rolled out in the first quarter of 2013.

The IFI Safety Statement was reviewed and revised to take account of changes in work practices and the introduction of technology such as the use of kayaks, utility task vehicles (UTV), bicycle patrols, use of remote operated vehicles(ROV), hydro-acoustic surveys, use of disinfection kits and stations, use of body cameras and use of detection dogs. This review was undertaken in conjunction with the National Safety Committee. The revised statement was launched at the IFI staff corporate day and each staff member was provided with a CD copy of the statement.

In 2013 IFI introduced a voluntary health screening programme for staff. The programme is designed to test for health risk factors and to encourage staff to address same if and



where identified. This proved an exceptionally successful programme with an uptake amongst staff of 90%.

Safety risk assessments of IFI properties and operational bases continued as a key part of the health and safety management programme. The programme is designed to ensure each property is assessed on a biannual basis and any improvements implemented where any shortfall is identified. Twenty assessments were completed in 2013.

In 2013 IFI again supported safety initiatives and events organised by the Institute of Occupational Safety & Health's (IOSH) Rural Industries Section and the Health & Safety Authority.

Incident Reporting Statistics 2013

A total of 17 incidents resulting in injury were reported to the Health & Safety Executive in 2013. This is a decrease of 30% when compared to 2012. Of these 5 were reported to the Health & Safety Authority. The number of incidents reported in each of the River Basin Districts ranged from 0 to 8 with two locations recording no incidents which resulted in injury.

Freedom of Information

Five Freedom of Information (FOI) requests were received in 2013, three from members of staff, one from a stakeholder and one from the general public. Of the five requests, two were in relation to personal information, two were non-personal and one was seeking a range of information of both a personal and non-personal nature.

Of the total received, one was granted, one was refused, one was withdrawn and handled outside of the FOI process and two were brought forward to 2014. IFI also received an appeal which upheld the original decision and this was subsequently appealed to the Information Commissioner.

Chief Executive Officer Remuneration

The remuneration of the Chief Executive Officer of Inland Fisheries Ireland is in accordance with the Assistant Secretary scale which ranges from: minimum \leq 125,761 to maximum \leq 143,574.

Note: The scale quoted reflects reductions required under the terms of the Haddington Road Agreement.



Finance & ICT

Finance & ICT – An Introduction

The role of the Finance and Information and Communications Technology (ICT) Division of Inland Fisheries Ireland (IFI) is to deliver an effective financial management service to IFI through provision of a comprehensive set of Financial and ICT systems which are adaptive and flexible enough to meet the evolving demands of IFI and robust enough to meet the highest standards of corporate governance.

The Division is pleased to report on the successful delivery against the goals defined in the agency's 2013 Business Plans. In addition to providing the necessary financial management, co-ordination, and specialist support services to all Divisions and maintaining proper financial records for the agency during 2013, the Division complied with statutory and corporate governance reporting deadlines for both the Financial Statements and the Annual Report.

The Division also provided financial advice for strategic decision making to the management and Board of IFI, including Board financial accounts and analysis.

The Division was instrumental in managing the financial and legal aspects relating to all property transactions during 2013 which included the disposal of the former offices at Balnagowan, Glasnevin, the acquisition of the new Dublin property in CityWest, the acquisition of the premises at Thorn Road in Letterkenny, and at Woodbine, New Ross.

The structure of the finance function continues to be reviewed at national level in order to accommodate the requirements resulting from the formation of IFI. Finance staff continue to take on additional responsibilities to compensate for staffing restrictions due to the impact of the national employment control framework.

Financial Management

Budgets and Management accounts

During 2013 detailed Divisional budgets were prepared and consolidated into a final IFI budget that was agreed by the Board and the Senior Management Team (SMT). Management accounts were presented to the Board and SMT on a monthly basis with a commentary on performance against budget. Reporting formats were changed during the year to improve the quality and accessibility of the financial information being presented to the Board for decision making purposes.

Financial Statements

IFI's Financial Accounts in respect of 2013 were submitted to the Department of Communications, Energy and Natural Resources (DCENR) by the 28th of February 2014 and to the Minister and the Comptroller and Auditor General (C&AG) by the 31st of March 2014 in full compliance with statutory obligations.

Electronic Purchase Order system rollout

The Electronic Purchase Order system was rolled out to the 7 River Basin District offices in 2013 and was fully operational in 6 of them at year end.



Payroll and pension

The payroll function operated effectively throughout 2013. The changes imposed by the Haddington Road Agreement were applied and a seamless changeover for staff was managed within the payroll function. Pensions, gratuities, service buybacks, and transfers of service were calculated for 27 staff in 2013. There were three actual retirements, one deferred pensioner retirement and three targeted voluntary redundancy cases in 2013 that are included in the above figures. There was also an initiative to move staff from paper based payslips to e-mail payslips. The numbers moving to electronic payments was 165 out of the 321 staff within IFI.

Projects and non-standard financial reports

All European Union (EU) sponsored project claims were submitted within the required deadlines, the main projects being the Celtic Sea Trout Project (CSTP), funded through the Innovation and Environmental Regions of Europe programme (INTEREG), the Control of Aquatic Invasive Species in Ireland project (CAISIE, funded through the EU LIFE+ programme), and the Controlling invasive priority non-native species and restoring native biodiversity project (CIRB, funded through INTERREG). A comprehensive audit was conducted by EU auditors on both the CSTP and the CAISIE projects with auditor visits on the other projects also occurring during the year. The CAISIE project and the CSTP project concluded in 2013. A new pilot project entitled Salmonids West (funded through INTERREG Northern Periphery Programme) commenced in 2013. The amount of EU funding recognised in the financial statements to the 31st of December 2013 was €457,381.

Property

The disposal of the Glasnevin, Dublin premises took place in February 2013 and the new Dublin office in Citywest was acquired in March 2013. The legal and financial cost aspects of both of these projects consumed substantial time within the Finance Division. A refund of 50% of all property rates paid on the Glasnevin premises during its vacant period was obtained prior to its disposal. Assistance was also provided for the purchase of industrial units at both Letterkenny, Donegal and New Ross, Wexford.

Procurement

A total of $\in 3.739$ million was expended on the purchase of assets in 2013. The Citywest element of this expenditure to date is $\in 2.609$ million. Strict procurement procedures were applied and in a significant number of cases assets were purchased either through Government frameworks set up by the National Procurement Service or the eTenders portal. Assets not purchased through these processes were generally only in specific cases of bespoke or force majeure requirements. Management continue to nurture the strong value for money culture inherent throughout the organisation.

Financial Planning

Financial and Treasury management

The Finance Division, in conjunction with our parent Department, Department of Communications, Energy and Natural Resources (DCENR), successfully met both strategic and operational funding requirements during 2013. A key project that required \in 3 million capital funding was the acquisition of the new Dublin office at Citywest. Due to the ongoing fit out of these premises an element of this funding is to be carried forward into 2014.



Yields from funds held on deposits were up 54% on 2012; this was largely attributable to IFI having more funds on deposit for longer than planned due the completion of the Citywest project.

Funding for 2013

In 2013 IFI received an exchequer grant of $\leq 28,259$ million, of which ≤ 17.618 million was allocated towards pay, the total cost of which was ≤ 19.4 million and ≤ 3.824 million which was allocated toward capital which was focused on the new premises requirements of IFI. IFI also generated ≤ 4.5 million from other sources during 2013. This was reinvested in the management, conservation and protection of the inland fisheries resource.

An additional €0.541 million was generated from the Salmon Conservation Fund during 2013. This fund is due to be disbursed in 2014 for reinvestment in the conservation and rehabilitation of salmon and sea trout fisheries/ habitats. Part of these funds will be made available to angling clubs, federations and similar organisations.

Information & Communications Technology (ICT)

The ICT function provided technical support to various IFI ICT projects which included further development of IFI's intranet, Geographical Information Systems (GIS) application development along with service monitoring of the national communication data network, and all day to day technical support requests throughout 2013. The IFI River Basin District (RBD) IT support and maintenance was also coordinated and managed by the ICT function.

SharePoint/ Intranet

Further development of IFI's intranet was carried out in 2013, with the addition of a health and safety portal to the existing HR intranet site. Other Divisions will have sites and portals developed in 2014.

Desktop/ Laptop roll out

Each year an audit is completed to identify laptops and desktops which require replacement throughout IFI. Devices which were replaced provided a more efficient and up to date computing environment for end users, which also enabled IFI to roll out various applications nationally. Laptops underwent encryption procedures before issue to staff.

Corporate Governance

In 2013 there was continued development of policies and procedures to enhance good corporate governance and to reflect best practice. The following new policies and procedures were presented to the Board:

- IFI Foreign and Domestic Travel and Expenses policy and Procedure to monitor Foreign Travel
- IFI Capital Appraisal submission and a Performance Measurement System to Assess the Effectiveness of Major Expenditure
- IFI Gift and Hospitality Register and Guidance
- IFI Statement of Directors' responsibilities in relation to the preparation of the accounts, the State body's system of internal control and audit, and for reporting



on the business as a going concern with supporting assumptions or qualifications as necessary

• Updated Code of Business Conduct for Employees.

The 2013 draft Annual Report was submitted to DCENR by the statutory deadline.

Four Audit Committee meetings were held in 2013.

Three of the IFI Board members appointed in 2010 completed their three year term of appointment to the Board during 2013. Two new Board members were appointed in 2013 and they were provided with a briefing on IFI corporate governance policies and procedures.

During 2013 IFI coordinated responses to 62 Parliamentary questions.

Internal Audit

Two internal audits were carried out in 2013 by the internal auditors RSM McClure Watters; an Audit for the purposes of confirming the Statement of Internal Financial Control (SIFC) which covered areas such as payroll, cash and bank, fixed assets and overseas travel and an Audit of Corporate Governance to examine the effectiveness of management control over corporate governance policies and procedures which provided satisfactory assurance that the system is operating as intended. A special report on the status of the IFI fleet was commissioned and this commenced in December 2013.

IFI have endeavoured to comply with the Prompt Payments Act and a progress report can be found on the website and at Appendix 26 of the Appendices to this report.



INLAND FISHERIES IRELAND

DRAFT INCOME AND EXPENDITURE ACCOUNT FOR THE 12 MONTHS TO 31 DECEMBER 2013

		_					
	Notes	2013	<i>c</i>	2	012		
		ŧ	ŧ	ŧ	ŧ		
Income							
State and EU Funding							
Operating grants		28,258,604		25,463,425			
Net deferred funding for pensions	l2c	4,056,021	32,314,625	3,284,518	28,747,943		
Other Income	2		4,571,074		5,210,883		
Transfer from / (to) Capital Account	10	_	(2,036,462)	_	1,193,260		
		-	34,849,237	-	35,152,086		
Expenditure							
Administration	3		5,636,385		5,469,854		
Operations (✓ 4	_	26,489,933	_	27,244,943		
		-	32,126,318	-	32,714,797		
Surplus / (Deficit) at 1 ar			6 485 535		4 048 246		
Surplus / (Deficit) a m jou and			2 722 919		2 437 289		
Sulpius / (Dencit) / pe. Su inu			_,,,, , , , , ,		2,107,207		
		-	9,208,454	-	6,485,535		
DRAFT STATEMENT OF TOTAL RECOGNISED) GAINS AND L	OSSES FOR THE I	2 MONTHS TO	31 DECEMBER 2	2013		
			2013	2	012		
		_	€	_	€		
(Deficit)/surplus for the period	>		2,722,919		2,437,289		
Experience losses / (gains) on pension - eme	e liabilities						
Changes in assumptions underlyin the ser	nt value of pens	sion scheme liabilit	ies				

Actuarial Loss / (rain)		
Actuarial Loss / (game set ion additions 120	(11,777,000)	14,672,000
Adjustment to Deferre ension Funding	11,999,000	(14,672,000)
Total Recognised (loss)/gain for the period	2,722,919	2,437,289
The Sector of Accounting Delicity and Nature 1 to 17 forms on	integral part of these Financial States	

The Statement of Accounting Policies and Notes 1 to 17 form an integral part of these Financial Statements Chief Executive

Board Member



Glossary of Terms

Acoustic tagging use of small tag transmitters

Ammocoete the larva of primitive jawless vertebrates, such as the lamprey, that lives buried in mud and feeds on microorganisms

Anadromous fish Fish born in fresh water which spends most of its life in the sea and return to fresh water to spawn e.g. salmon, smelt, shad, striped bass, and sturgeon are common examples. *opp* catadromous: does the opposite - lives in fresh water and enters salt water to spawn. Most eels are catadromous.

Bunding Structure to prevent water ingress

Charophyte a native aquatic plant

Crump Weir Generally a weir designed with a specific slope to accommodate a fish counter

December dark refers to the period of time in December when the moon is in the 'newmoon' phase. Silver eels generally migrate during the new moon phase as these nights correspond to the darkest nights during the month

DCENR the Department of Communications, Energy and Natural Resources

DoF the Department of Finance

Electro Fishing The utilisation of the reaction of fish to electrical fields in water for facilitating fish capture

FI Fáilte Ireland

Fish Counters Electronic device used to determine the number of fish migrating past a particular location. (See Logie, Partial, Vaki, Counters)

Hydromorphology a term used in river basin management to describe the hydrological and geomorphological processes and attributes of rivers, lakes, estuaries and coastal waters. The Water Framework Directive (WFD) dictates that the ecology of surface waters is protected by correctly managing their hydrology and geomorphology

LA Local Authority

Logie Fish Counter Resistivity fish counter placed across a weir to count fish moving upstream or downstream.

Macroinvertebrates are organisms that are large (macro) enough to be seen with the naked eye and lack a backbone (invertebrate). They inhabit all types of running waters. Examples of aquatic macroinvertebrates include insects in their larval or nymph form, crayfish, clams, snails, and worms. They are good indicators of stream quality.

MI Marine Institute

NPWS National Parks and Wildlife Service

OPW the Office of Public Works

Otoliths commonly known as "earstones," are hard, calcium carbonate structures located directly behind the brain of bony fishes. X-ray images of a spotted sea trout show the location and orientation of the otoliths.

Partial Counter Fish counter which only covers part of the River width or counts only part of the fish run.

Put and Take Fisheries Fisheries where hatchery trout are stocked at a catchable size to create recreational angling.



PIT Tag A Passive Integrated Transponder (PIT) tag is an encoded wire tag attached to a fish which and can be read remotely using a pit tag reader based on radio frequency technology.

Physico-chemical physical and chemical properties

Raising factor factor by which the numbers in the sample have to be multiplied to give the total numbers in the population sampled.

REDD/REDDS A spawning nest made by a fish, especially a salmon or trout.

RBD River Basin District.

Rip rap a foundation or sustaining wall of stones or chunks of concrete placed together as in deep water or on an embankment slope to prevent erosion

Salmonid trout and salmon.

SWIM A part of a stream frequented by fish.

Standing Scientific Committee for Salmon purpose is to offer independent scientific advice to IFI on Eels and Salmon.

Semi quantitative method the simplest form of a semi-quantitative survey is a single run electrofishing survey, which uses the fish caught to derive a minimum estimate of the fish population.

Standard 3 pass quantitative depletion method an electrofishing survey where fish are removed from a site in a series of three successive electrofishing runs.

TI Tourism Ireland

Vaki Fish Counter Infra-red fish counter used in narrow locations such as a fish pass to count salmon and sea trout.

WWTP Waste water treatment plant

WFD Water Framework Directive.

WI Waterways Ireland.



Appendices

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Appendix 1. Inland Fisheries Ireland main offices and River Basin District Map

Schedule of Fish Counters operated by IEI in 2013											
	Schedule of Fish counters operated by IFI in 2015										
	River	District	Counter Type	Full Counter/ Partial							
				Counter							
1	Fane	Drogheda	Logie	Full							
2	Dee	Drogheda	Vaki	Full							
3	Boyne	Drogheda	Logie and 2 Vaki	Full							
4	Slaney	Wexford	Logie tube	Partial							
5	Kerry Blackwater	Kerry	Logie	Full							
6	Waterville	Kerry	Logie	Full							
7	Maine	Kerry	Logie	Full							
8	Feale	Limerick	Logie	Partial							
9	Maigue	Limerick	Logie x 3	Full							
10	Mulkear	Limerick	Logie	Full							
11	Fergus	Limerick	Logie tube	Partial							
12	Dunkellin	Galway	Logie	Full							
13	Corrib	Galway	Logie	Partial							
14	Owenboliska	Galway	Logie	Full							
15	Casla	Connemara	Logie	Full							
16	Gowla	Connemara	Vaki	Full							
17	Inagh	Connemara	Logie	Partial							
18	Ballynahinch	Connemara	Logie	Full							
19	Owenglin	Ballinakill	Vaki	Full							
20	Dawros	Ballinakill	Logie	Full							
21	Culfin	Ballinakill	Logie	Full							
22	Erriff	Ballinakill	Vaki	Full							
23	Bunowen	Ballinakill	Logie	Full							
24	Owenduff	Bangor	Logie	Full							
25	Owenmore	Bangor	Logie	Full							
26	Carrowmore	Bangor	Logie	Full							
27	Моу	Ballina	Logie and 2 Vaki	Partial							
28	Ballisodare	Sligo	Vaki	Full							
29	Garravogue	Sligo	Vaki	Partial							
30	Eske	Ballyshannon	Logie	Full							
31	Eany	Ballyshannon	Logie	Full							

Appendix 2: Schedule of Fish Counters operated by IFI in 2013

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* Due to the broad scope of IFI's work and the unique nature of each RBD, environmental inspections can be wide ranging in terms of complexity and with varying levels of investigative requirements. The RBDs report on Environmental Inspections which are deemed as "visual inspections" and also on more complex cases where a greater degree of analysis/inspection is required.

Appendix 7. Number of Inspections of Permit and Licence Holders in 2013

* As a number of rivers in the NWRBD district are closed to salmon angling and there is resultant decreased angling activity, mainstream protection patrols are generally carried out in the late evening during the hours of darkness and early morning when angling activity is minimal.

*Permit and Licence Holder Inspections in 2013	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Commercial Salmon and Sea Trout Licence Holders	80	232	198	83	755	6*	1,354
Recreational Salmon and Sea Trout Licence Holders	1,670	1,167	2,681	4,905	7,230	1,004	18,657
Inspections of Non-licensed Anglers (Trout, Coarse Fish and Sea Anglers)	6,076	2,154	572	3,007	3,114	62	14,985

Appendix 8. Prosecutions and On the Spot Fines 2013

Prosecutions and On the Spot Fines	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Number of Prosecutions	6	8	36	10	20	32	112
Number of Cases in Court	10	6	24	3	17	24	84
Cases Appealed	0	1	1	1	0	1	4
Number of On the Spot Fines Issued	41	9	68	52	99	26	295
Number of Fines Paid	23	9	64	45	63	19	223
On the Spot Fines in 2013 €	€3,450	€1,350	€9,530	€6,410	€9,450	€2,850	€33,040

Appendix 9. Angling Development Works 2013

The main focus of angling facility development related to access improvement rather than the creation of new spaces. The main expenditure for the SHRBD and WRBD related to the creation of a new disabled fishing platform at Lough Doon and improvements to slipways at Corrigeencor and Glencar Loughs in the WRBD as well as disabled angling facilities at Lough. Ramor, Co. Cavan, Lough Loung, Co.

Angling Development Works	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Number of Angling Facility enhancement projects	7	1	3	12	10	18	51
Investment in Angling Facility enhancement € (excluding Salmon Conservation Projects)	€6,000	€10,000	€1,500	€125,000	€88,869	€33,229	€264,598
Number of Stiles, Footbridges, Platforms replaced	2	0	1	15	19	240	277
Number of New Additional Fishing Spaces created	25	6	0	38	3	127	199
Number of Coarse Fish transferred within the river basin district	2,700	0	0	10,137	503	63	13,403

Roscommon and Lough Acalla, Co. Galway.

Appendix	x 10. Rehab	ilitation o	f Rivers/S	treams 201	3	

River Sites Developed refers to sites where no previous work has been carried out.

River/ stream maintained refers to sites where on-going work is carried out to ensure the quality of the river/stream is maintained to a high standard. Stream Rehabilitation refers to sites which have undergone rehabilitation work following significant damage/deterioration.

Rehabilitation of Rivers/ Streams	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Number of Rivers Sites Developed	20	70	34	52	110	163	449
Length of River/Stream Maintained (metres)	310	3,500	400	360	24,305	29,005	57,880
Length of Stream Rehabilitated (metres)	550	4,420	100	12,860	17,340	8,775	44,045
Appendix 11. Environmental Protection: Warning Letters issued in 2013

Environmental Protection No. of Warning Letters Issued in 2013								
ERBD	23							
SERBD	40							
SWRBD	103							
SHRBD	40							
WRBD	23							
NWRBD	69							
Total	298							

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Appendix 12: Pollution Control and Water Quality Report 2013

* Other: Cause not determined. High temperatures and low water levels are suspected in some instances.
 ** Low water in one case and the other possibility associated with mass perch spawning at Loughrea, Co. Galway
 *** Monthly catchment water quality sampling figures for Lough Sheelin, Co Westmeath are included.

Pollution Control and Water Quality	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Reported Fish Kills	12	4	4	19	3	10	52
Fish Kills Caused by Agricultural Practice	1	1	0	7	1	2	12
Fish Kills Caused by Industrial Operations	4	0	2	1	0	0	7
Fish Kills Caused by Municipal Works	1	1	0	1	0	2	5
Other *	6*	2*	2*	10*	2**	6	28
Number of Water Samples Collected	64	159	119	1,788***	191	526	2,847

Appendix 13. Fisheries Development Surveys carried out in 2013 General Fisheries Surveys are generic surveys which are not covered by other surveys. This includes surveys by Local clubs involved in development work and tidy towns and river bank initiatives.

Fisheries Development Surveys	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Totals
Number of Small Stream Risk Surveys (SSRS)	9	3	4	3	4	0	23
Number of Electrofishing Surveys	92	12	7	10	198	24	343
Number of General Fisheries Surveys	26	39	10	96	89	106	366

Appendix 14. Reports to IFI 24 Hour Fisheries Protection Hotline in 2013

Number of Incidents Reported to IFI 24 Hour Fisheries Protection Hotline Tel. 1890 34 74 24								
Incident Type	Number							
Illegal Fishing Cases Reported 245								
Number of Pollution Cases Reported	116							
Number of Invasive Species Cases Reported	6							
Other	154							
Total Number of Calls	521							

Appendix 15: Current Funded Projects in 2013

Project/ Survey Title	Project	Total	Duration	Funding Source
	Director	Budget		
		€ €	2.14	
Atlantic Aquatic Resource	Paddy	€3.8/m	3 Years	ERDF, IFI, University
	Gurgun			Electricity Supply Board
				(ESB) & Marine Institute
		C1 74m		(MI)
Mulkear LIFE, EU LIFE+ Project		€1.74m	5 Years	Council (Co Co) NPWS
	Concinan			North & South T. Co.Co.
Control of Aquatic Invasive	Joe Caffrey	€1.5m	4 Years	EC Life+ & NPSW
Species in Ireland (CAISIE)				
Celtic Sea Trout Project (CSTP)	Paddy	€466,000	3 Years	INTERREG Iva Ireland –
	Gargan &			Wales & IFI internal funding
Water Framework Directive	Willie Roche	£433.000	On-going	IEI
(WFD) Surveillance Monitoring		2433,000	On-going	11 1
of Fish Stocks in Lakes, Rivers				
& Transitional Waters		6270.000		
Environmental River	Martin O'Grady	€270,000	On-going	Office of Public Works
(EREP)	Jimmy King			
· · ·				
Waterways Ireland Project	Joe Caffrey	€235,000	On-going	Waterways Ireland
Habitats Directive	James King	€200,000	On-going	IFI
National Fel Management Plan	Paddy	£188 766	On-going	IFI
National Lei Management Han	Gargan	C100,700	on going	111
Salmon CL Attainment Project	Paddy	€120,224	On-going	Conservation Stamp Fund
	Gargan		4 Vooro	EU
	Gargan	£113,344	4 Tears	
Pike Research	Joe Caffrey	€96,000	3 Years	IFI & IFPAC
		626.000		TET internal from dia a
Saimonia West Project	Paddy	€26,800	On-going	1F1 Internal funding
	Gargan			
National Bass Programme	Willie Roche,	€20,000	On-going	EU Data Collection
				Framework & IFI internal
INTERREG IVA CIRB Project	Joe Caffrey	€26,646	4 years	EU Interreg
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

Appendix 16. Bye-laws and Statutory Instruments (SI's) enacted in 2012 for the 2013 season and enacted within the 2013 season

Bye-law No.	Bye-laws enacted in 2012 for the 2013 season
312, 2012	Conservation of Eel Fishing
313, 2012	Conservation of Salmon and Sea Trout (Closed Rivers)
901, 2012	Conservation of Salmon and Sea Trout (Bag Limits)
902, 2012	Conservation of Salmon and Sea Trout (Catch and Release)
Bye-law No.	Bye-laws enacted in 2013
903, 2013	Conservation of Salmon and Sea Trout (Newport River)
904, 2013	Conservation of Salmon and Sea Trout (River Nore)
905, 2013	Conservation of Salmon and Trout (River Slaney)
906, 2013	Conservation of Salmon and Sea Trout (Draft nets and Snap nets)
907, 2013	Angling Bye-law
908, 2013	Conservation of Sea Trout
909, 2013	Conservation of Salmon and Sea Trout (R. Shannon) (Catch and Release)
910, 2013	Conservation of Salmon and Sea Trout (River Feale inc Galey and Brick)
911, 2013	Conservation of Salmon and Sea Trout (River Suir)
912, 2013	Conservation of Salmon and Sea Trout (Extension to River Suir Snap Net Season)
314,2013	Lismore District (Conservation of Salmon and Sea Trout) Closed Season
315, 2013	Tullaghobegley River Prohibition on Angling with Rod and Line
Sta	atutory Instruments (S.I's)
S.I. No. 556 of 2012	Wild Salmon and Sea Trout Tagging Scheme Regulations 2012
S.I. No 75 of 2013	Control of Fishing for Salmon Order 2013
S.I. No 76 of 2013	Inland Fisheries (Fixed Charge Notice) Regulations 2013

River Basin District	Salmon & Sea Trout Angling Licences Sold	*% of Logbook Returns	
ERBD	1,170	1,024	87.52%
SERBD	1,453	1,188	81.76%
SWRBD	4,559	3,661	80.30%
SHRBD	997	822	82.45%
WRBD	7,884	5,503	69.80%
NWRBD	3,046	1,837	60.31%
Total	19,109	14,035	73.45%

Appendix 17. Salmon and Sea Trout Angling Licence and Logbook Returns 2013

Appendix 18. Salmon and Sea Trout Angling Licence Sales in each RBD 2013

Licence Category	Annual A	District B	Juvenile P	21 Day R	1 Day S	Foyle Ext W	Special Local X	Region Total
ERBD	609	342	78	85	52	4	0	1,170
SERBD	368	834	112	94	44	1	0	1,453
SWRBD	919	1,705	323	1,077	535	0	0	4,559
SHRBD	285	505	84	40	83	0	0	997
WRBD	1,070	2,462	641	2,533	1,064	114	0	7,884
NWRBD	372	865	213	457	429	379	331	3,046
Total	3,623	6,713	1,451	4,286	2,207	498	331	19,109

	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Salmon/ Sea Trout Angling Licences issued	1,170	1,453	4,559	997	7,884	3,046	19,109
Commercial Salmon Licences issued							
Private Draft Net	0	0	12	0	1	0	13
Public Draft Net under Control of Fishing for Salmon Order (CFSO)	0	0	30	39	15	18	102
Special Local Draft Net	0	0	0	0	23	7	30
Snap Net	0	87	7	0	0	0	94
Other	0	0	1	0	0	0	1
Totals	0	87	50	39	39	25	240
Dealer Licences							
Salmon/ Trout Dealers	55	21	32	13	15	10	146
Molluscs Dealers	65	21	28	27	7	8	156
IFI Managed Fisheries							
Fisheries Managed	2	n/a	20	5	8	8	43
Revenue €	€7,000	n/a	€118,633	€99,013	€305,079	€38,885	€568,610

Appendix 19. Fishing Licences and RBD Managed Fisheries Report 2013

Appendix 20. Salmon Conservation Fund Projects 2013 based on funds paid out (1) Conservation component collected in 2012, funds allocated in 2013

(2) These projects range from projects allocated funds from 2009-2012

(3) Based on projects allocated funds in 2013

(4) Total of grant aid paid out in 2013 for projects allocated funds from 2009- 2012.

Salmon Conservation Fund (SCF) Projects	National	ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
No. of SCF projects allocated funds in 2013 from the conservation component of the licence (1)	1	10	3	2	3	3	4	26
No. of SCF projects completed in 2013 (2)	2	6	2	2	5	3	4	24
Total value of Projects applied for € (3)	€83,270	€109,700	€45,000	€24,500	€32,684	€46,580	€55,320	€397,054
Monetary value of aid provided € (4)	€134,189	€42,990	€34,800	€1,200	€43,163	€70,700	€34,754	€361,796

Appendix 21. Commercial Salmon and Sea Trout catches by River from Log Book returns 2013

Fishery District	Engine Type	River Name	Salmon Harvest	Sea Trout Harvest	Total Reported Salmon & Sea Trout Harvest
	Snap Net	Nore	2,341	21	2,362
Waterford	Snap Net	Suir (including Clodiagh, Lingaun/Blackwater)	944	0	944
Liemere	Snap Net	Blackwater (Munster)	407	2	409
LISINOIE	Draft	Blackwater (Munster)	1,237	4	1,241
		Lower Lee (Cork)	1,293	5	1,298
Cork	Draft Net	Bandon	51	0	51
		Ilen	158	4	162
		Laune (including Cottoners)	2,754	4	2,758
		Roughty	224	0	224
		Owenmore R. (Brandon)	153	11	164
Kerry	Draft Net	Inny (Knockmoyle)	42	9	51
-		Sneem	7	0	7
		Caragh	0	0	0
		Maine	20	0	20
		Castlemaine Harbour	965	0	965
Limerick	CFO Draft Net	Cashen/Feale	1,163	5	1,168
		Killary Harbour (Note 1)	304	0	304
Ballinakill	Draft Not	Dawros	196	0	196
Daiiiiakiii	Diait Net	Culfin	58	0	58
		Owenglin (Clifden)	5	0	5
		Owenmore	382	0	382
		Owenduff	263	0	263
Bangor	Draft Net	Combined estuary	268	0	268
		Glenamoy	0	0	0
		Newport River (Bangor)	41	0	41
Ballyshannon	Draft Net	Eany River	145	0	145
Letterkenny	Special Local Draft Net	Owenea/Owentocker Loughros More	519	0	519
	Draft Net	Gweebarra	185	0	185
	Tot	als	14,125	65	14,190

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Wild Fish Stocking by IFI		ERBD	SERBD	SWRBD	SHRBD	WRBD	NWRBD	Total
Salmon Stocked	No	0	0	0	0	0	0	0
Coarse Fish Transferred	No	0	0	0	0	0	0	0
Wild Brown Trout Fry	No	0	0	0	200,000	0	0	200,000
Total		0	0	0	200,000	0	0	200,000
Reared Fish Stocking by IFI								
Brown Trout Fry	No	0	0	0	0	0	0	0
Brown Trout 1 Year old	No	60	150	0	1,050	0	0	1,260
Brown Trout 2 Year old	No	3,536	0	0	15,600	5,250	0	24,386
Rainbow Trout 1 Year old	No	1,000	0	42,246	9,400	0	0	52,646
Rainbow Trout 2 Year old	No	300	0	400	600	1,200	0	2,500
Total		4,896	150	42,646	26,650	6,450	0	80,792

Appendix 22. IFI Fish Stocking 2013

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	Total number	Total number	%	Days at	Dist.	Numbers	
	Tagged June	recaptured June	Return	Liberty	Travelled	Tagged in	
	1970 to December 2013	1970 to December 2013			(KM)	2013	
	December 2013	December 2015					
Blue Shark	19,643	865	4.44%	0-6502	0-6800	255	
Porbeagle Shark	180	9	5.00%	71-3947	142-3680	9	
Thresher Shark	1	0	0.00%	N/A	N/A	0	
Торе	7,702	518	6.73%	28-6587	0-4300	347	
Monkfish	1,028	190	18.48%	0-4525	0-1152	0	
Common Skate	1,358	185	13.62%	5123	0-434	23	
Long Nosed Skate	3	0	0.00%	N/A	N/A	0	
White Skate	21	1	4.76%	975	4.8	0	
Blonde Ray	735	124	16.87%	16-1871	0-180	0	
Undulate Ray	1,116	55	4.93%	0-2676	0-96	0	
Thornback Ray	10,390	317	3.05%	0-2190	0-180	75	
Painted Ray	285	13	4.56%	13-1398	0-32	5	
Homelyn Ray	401	14	3.49%	141-1373	0-115.2	7	
Cuckoo Ray	9	0	0.00%	N/A	N/A	0	
Spurdog	470	2	0.43%	280-521	1400	35	
Bass	1,805	56	3.10%	0-1373	0-140.8	0	
Mullet	311	5	1.61%	0-275	0-320	0	
Flounder	287	30	10.45%	0-738	0-5.6	0	
Sting Ray	43	0	0.00%	N/A	N/A	0	
Bull Huss	145	6	4.14%	103-1499	0-249.6	3	
Dabs	43	2	4.65%	378	3.2	0	
Smooth Hound	275	5	1.82%	1775	730	96	
Plaice	5	1	20.00%	70	0	0	
Bluefin Tuna	11	0	0.00%	N/A	N/A	0	
Blackmouthed Dogfish	8	0	0.00%	N/A	N/A	0	
Total	46,275					855	
Total Fish Tagged to date : 46,275							

Appendix 23. Tag and Recapture of Marine Species 2013

Appendix 24. IFI Staffing level at 31st of December 2013

IFI Staffing Full Time Equivalent (FTE) 2013					
Permanent Staff (FTE)	No.	291.9			
Exchequer Funded Temporary Staff (FTE)	No.	16.2			
Project Funded Staff (EU or other) No.					
Total Staff (FTE)					

Appendix 25. Training & Development Programmes delivered in 2013

Training & Development Programmes delivered in 2013	No. of Participants	No. of Training Days
Cardiac First Responder Instructor	2	4
Safe Pass Training	12	12
Manual Handling	52	26
Induction Training	81	81
Occupational First Aid - Full Course	7	21
Occupational First Aid – Refresher	74	74
Admin Workshop & Data Protection Awareness Training	13	13
Personal Water Craft (PWC) training	12	24
Sage Human Resources Training	3	3
Swift Water Rescue	137	274
Swiftwater & Flood Rescue Technician	2	8
FETAC 6 Train the Trainer	8	32
Lorry Mounted Crane Training	2	2
Advanced Powerboat	7	14
Navigation	3	3
Powerboat Instructors revalidation	3	6
Powerboat Level 2	11	33
Fisheries Law	33	33
Personal Survival Techniques (PST) & Rigid Inflatable Boat (Rib) Capsize	19	38
Chainsaw Basic + Advanced	4	40
Chainsaw Advanced	6	36
Basic Chainsaw	5	30
Basic Chainsaw Refresher	16	48
Conflict Management & Court Procedures	64	256
Global Maritime Distress & Safety Systems (GMDSS)	22	77
Rib Operator	6	24
Rib Coxswain	6	24
Performance Management and Development System (PMDS) Training	303	303
Basic Shop Steward Course	1	3
Cross Examination Skills	1	1
TOTAL	915	1,543

Details	Number	Value €	Percentage of total number of payments made
Number of payments made within 15 days	9,166	6,209,374	67%
Number of payments made within 16 days to 30 days	2,807	1,995,811	21%
Total payments made in excess of 30 days	1,610	1,392,766	12%
Total payments made in 2013	13,583	9,597,951	100%

Appendix 26: Prompt Payments made to creditors by IFI in 2013

Appendix 27. Parliamentary Questions and Freedom of Information enquiries answered by IFI in 2013

2013 PQs and FOIs	Total 2012
Parliamentary Questions (PQs)	62
Freedom of Information Requests (FOIs)	5

Board Member	Mileage & Subsistence	* Fees & Remuneration	
Brendan O'Mahony (Chairman)	7,795	32,319.00	
Lal Faherty ¹	7,994	20,776.50	
Andrew Duncan ^{1,2*}	3,866	18,852.75	
Dr Frances Lucy ¹	2,893	8,721.00	
John Carroll **	2,748	18,596.25	
John Geary ²	5,402	18,596.25	
Michael McGreal ²	4,697	18,596.25	
Marcus Mac Mahon ²	2,612	18,596.25	
Muireann O'Neill ¹	3,590	5,995.69	
Peter John Nally ³	1,324	Appointed September 2013	
Fintan Gorman ³	2,089	Appointed September 2013	
Lily Collison ⁴	0	2,725.31	
Dr Ciaran Byrne (ex-officio Board member)	12,649	0	
Total	57,659	163,775.25	
 also serves on Audit Sub also serves on Property S 3 year term of appointme 3 year term of appointme appointed to the Board on term of appointment 1st Junovember 2010. 	* Fees paid to the Board in 2013 include a retrospective payment for postponed fees for the period 1 st July 2010 to 30 th June 2012.		

Appendix 28. Mileage and Subsistence expenses & Fees paid to IFI Board members in 2013

Appendix 29: Summary of Seizures in 2013 from rivers, lakes and estuaries in all IFI River Basin Districts *Nets refers to Fixed, Bass, Coarse, Gill, Fyke, Land, Linnen, Loop, Monofilament, Trammel, Trout and Salmon nets. A detailed breakdown of Seizures during 2013 is available on the IFI website at <u>www.fisheriesireland.ie</u>

Monthly summary of seizures in 2013 from rivers, lakes and estuaries in all IFI River Basin Districts								
2013	No. of Incidents in each month from all RBDs	Boat	Number of Nets *	Total combined length of Nets seized (in metres)	Fishing Rods	Rod and reel	Fish	Other
JAN	9	2	3	551	4		2 Salmon 10 Bass	15 HP outboard motor
FEB	10		5	196	8	1	4 Salmon kelts	1 spear
MAR	6		6	310			1 Sea trout	2 sets of diving gear
APR	20		43	1,120	3	11	173 coarse fish 366 Scallops 8 Mullet 1 Salmon 1 Bass 1 Pike	2 bait bags 1 keep net
MAY	23	1 Dinghy + oars	18	1,082	2	2	7 coarse fish 11 Trout 2 Pike	2 bait boxes Bag of bait
JUN	32		58	2,999			52 Salmon 2 Trout	1 cool box 1 tackle bag 1 set of chest waders
JUL	91		124	8,733	3		59 Salmon 4 Sea Trout	1 pitch fork component of coghill net

AUG	89	1 Dinghy 1 Boat	122	4,857	9		25 Salmon 110 coarse fish 9 Sea bass 84 Pike 12 Trout Eels and coarse released live	1 Stroke haul Eel trap
SEPT	60		76	3,780	1		9 Salmon 20 Grilse 11 Sea Bass 30 Eels, small pike 4 bags of Oysters	1 Stroke haul Fixed hand line
ост	31	1 Boat 1 Dinghy		1,186			1 Salmon 15 Rudd 50 fish - Eels, Pike, Perch & Roach 78 Roach/Bream hybrids	1 Bucket, 1 Hammer, 1 Knife, 2 Bars, 1 Sledge Hammer
NOV	6	1 Boat & engine		150			11 Pike 1 Perch 300 Oysters	1 Boat & oars 1 Hold all with Bait + 1 Bait box
DEC	4			150			3 Sea bass 374 Oysters and 2 bags of Oysters	7 floats with live bait
Total	381		455	25,114m	30	14		