Agenda Item 7.1
For Information

Council

CNL(10)36

Information for the Compilation of a NASCO Implementation Plan and NASCO Focus Area Reports for Spain

We have received the attached report for EU-Spain concerning the development of an Implementation Plan and Focus Area reports. The Secretaria General del Mar has been working with the Autonomous Regions that have wild salmon populations to collate information to enable the production of an Implementation Plan and FARs and this progress is most welcome.

Secretary
Edinburgh
21 May 2010

INFORMATION FOR THE COMPILATION OF A NASCO IMPLEMENTATION PLAN AND NASCO FOCUS AREA REPORTS FOR SPAIN

1. SALMON MANAGEMENT

1.1. Describe the objectives of the salmon management strategy for the Region and summarise the roles of the management entities involved in implementing it:

GALICIA:

The Dirección Xeral de Conservación da Natureza (General Direction of Environment Conservation) is the entities responsible of salmon management in Galicia. The general objective is to promote and protect the diversity and abundance of salmon stocks, maintaining where it is possible an angling exploitation with sustainable guidelines.

ASTURIAS:

Actually, the Asturian Goverment is developing a Management Plan for Salmon Stock. This document includes as one of its purposes "Assuring the presence in all salmon rivers, enough breedings that can spawn naturally in the best possible conditions, to thus ensure the preservation of the species."

As main management objectives the document includes:
1. Encouraging the sustainable management of stocks, ensuring enough natural reproduction capacity of the species and, where necessary, reinforcing it with potential repopulation and proper management of competing species.
2. Preserving and improving the habitat, especially regarding water quality, and maintenance of river courses, banks and vegetation.
3. Establishing a responsible management and recreational fishing model, which supports the sustainable management of the species.
4. Establishing programs to monitor the fish populations and fishing pressure.
5. Keeping on the research on habitats and populations in areas of their population dynamics, captures, as well as the ecological, genetics and pathology studies.
6. Increasing social awareness to the river habitats, species and their sustainable use.

P.VASCO

Guipuzkoa
The main objective is to go on with and develop the Atlantic salmon reintroduction plan in the Urumea and Oria river basins, initiated at the 80`s of the past century by the local administration (Diputación Foral de Gipuzkoa/Gipuzkoako Foru Aldundia), responsible for the entire plan and its monitoring.

Bizkaia
The main objective is reintroduction the Atlantic salmon in the Lea and Barbadun river basins, initiated at the 90`s of the past century by the local administration (Diputación Foral de Bizkaia).

NAVARRA

The roles of the management entities involved in implementing it:
In the autonomous region of Navarra, the entity involved in salmon management is the Department of Rural Development and of the Environment of the Govement of Navarra, and its main objectives are:
1. The conservation of the species.
2. The enhancement and increase of the salmon population stock.
3. Habitat improvement and the increase of the area occupied by salmon.
4. Sustainable use of the resource by the recreational fishery.

CANTABRIA

(This information has not been received from this Autonomus Region)

1.2. Describe the nature and extent of the salmon resource in the Region (e.g. number and size of stocks, special designations, etc) with a map, and the status of the salmon stocks:

GALICIA

Salmon is present in 8 rivers (Eo, Masma, Ouro, Landro, Mero, Mandeo, Ulla, Lérez and Miño). The more stable stocks are in 3 rivers (Eo, Ulla and Miño), other 3 rivers has medium level (Masma, Mandeo and Lérez) and 3 with low level (Ouro, Landro and Mero). (map has not been received)

ASTURIAS

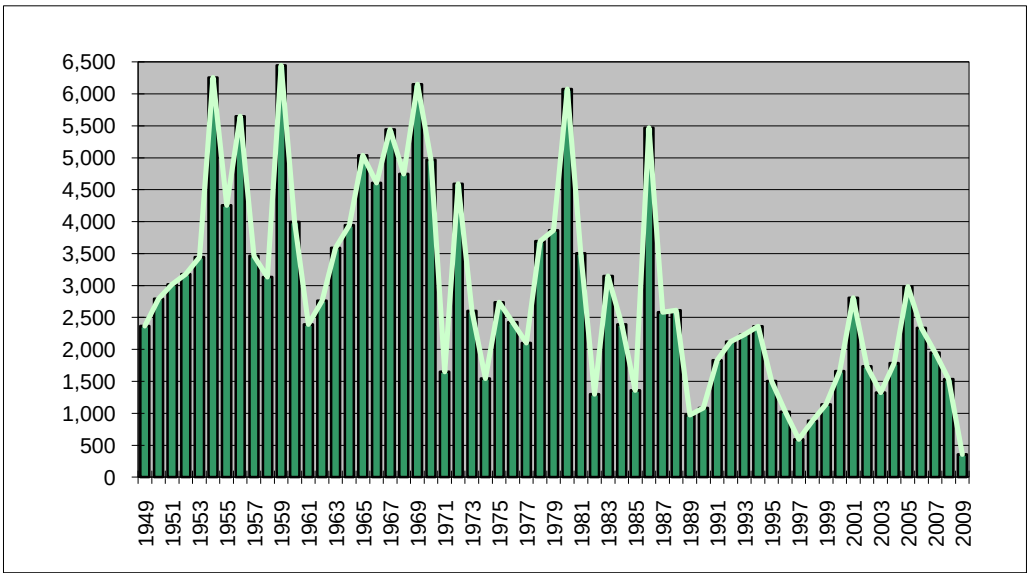
Rivers:
The asturian hydrographic network is very extensive. It is estimated that the stretches of permanent running waters, colonized by salmonids, are more than 2.500 linear kilometers. Of these, less than 400 kilometers would be accessible stretches for salmon and their habitat, and about a thousand kilometers would be inhabited by other migrating species, the eel.

Hydrographic Basin:
The Atlantic salmon (Salmo Salar) breeds populations in the following rivers basins: Deva, Sella, Narcea (up to dam Calabazos) Nalón (up to Las Caldas, and Cubia and Trubia rivers), Navia (up to prey Arbón), Eo, Esva, Portia, Bedon, and occasionally, in Purón, Esqueiro and Negro.

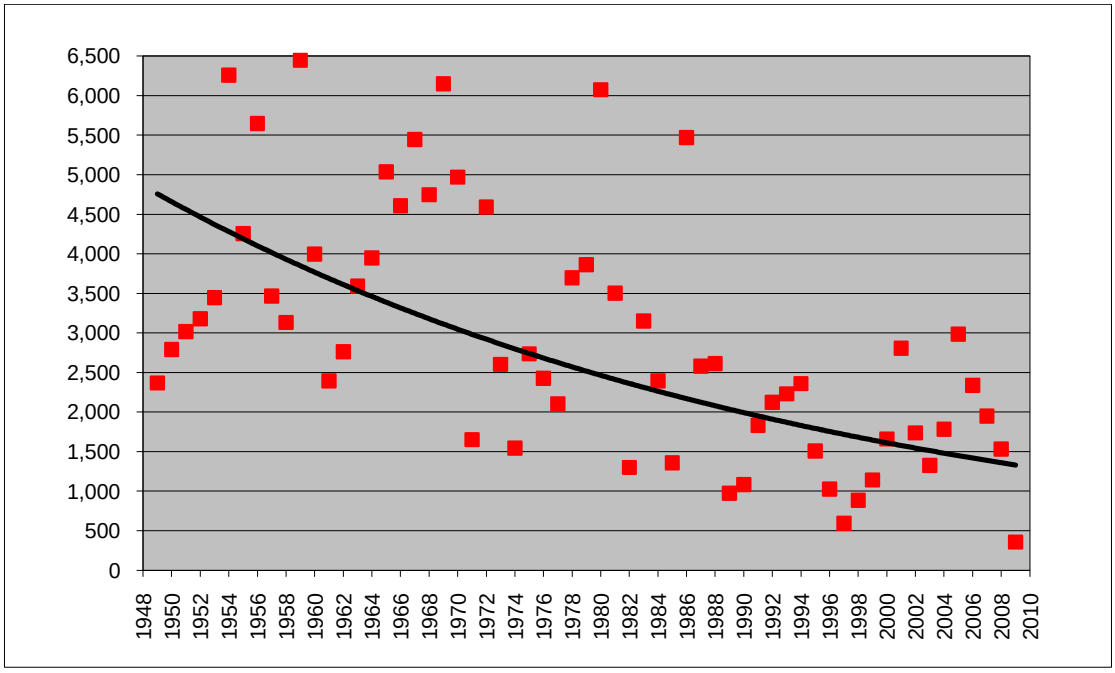
Salmon Zone:
All of these rivers have regulated their use regime, and a geographical classification has been made, which involves possible changes in fishing periods, fishing equipment and carvings, depending on whether fishing takes place or not in the salmon zone, where there are time and fish species constraints.

The rivers in which the salmon fishing has been allowed under these rules are Deva and Cares, Sella & Pilon, Narcea, Nalón Eo Navia, Esva, Portia, Bedon, and Puron, although the 2010 legislation has limited it to Deva, Cares, Sella, Narcea - Nalón, and Eo.

Status of salmon stock.
In Asturias, using the number of annual catch during the fishing season as an index of abundance, it is observed that in the historical series which were begun in 1949, the decrease is constant and significant (about 2,2% per year), which represents a decrease from the general trend over a decade of nearly to 20%. (Nores, 2007)



Graph 1. Evolution of salmon catches in Asturias along the period 1949-2009



Graph 2. General trend of salmon catches in Asturias along the period 1949-2009

The information obtained by other means shows similar trends. Thus, an assessment of the sizes of salmon stocks in the Asturian rivers obtained by genetic means indicate that in the rivers Eo, Esva, Narcea, Sella and Cares, they have declined dramatically between the 90s of last century and 2000. Although the data vary depending on the statistical method taken into account, decreases can be noticed in every study around 50% of the effective population size and total (Garcia, 2009).

Some particulars of the catch trends in major Asturian rivers during the last years are shown in the table below:

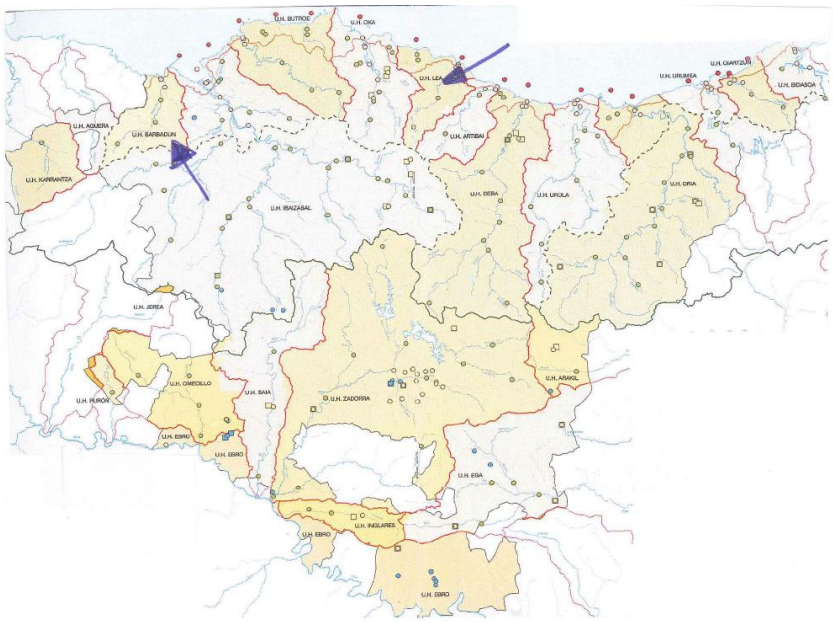
RIO	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Deva-Cares	413	551	320	331	366	410	393	345	369	105
Narcea-Nalón	643	1159	604	273	459	910	826	656	467	122
Sella	440	753	563	628	628	1100	455	610	528	85
Esva	102	198	115	31	31	75	172	115	68	12
Navia	1	10	5	1	1	7	11	16	5	1
Porcía	18	0	0	0	4	10	13	13	0	4
Eo	43	135	129	62	62	236	234	194	96	27

(map has not been received)

PAÍS VASCO

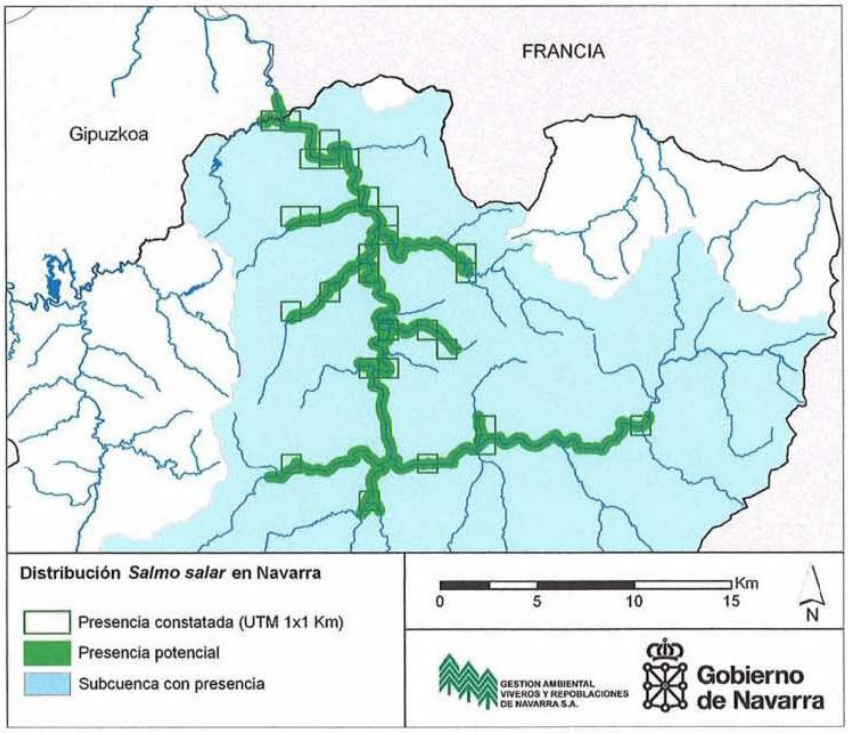
Guipuzkoa
Urumea river medium adult population size (1994-2009): 63 adult salmon
Oria river medium adult population size (1998-2009): 25 adult salmon

Bizkaia
Lea river medium adult population size (2000-2008): 5 adult salmon.
Barbadun river medium adult population size (2000-2008): 5 adult salmon.



NAVARRA

The main salmon stock within Navarra is located in the Bidasoa River (see map), where the adult salmon population size vary between 250 and 500 returning adults. The decrease in salmon retums observed in during from the 70s to the 90s have been stopped and stabilized since the middle 90s.



The retuming adults are nearly 80% grilse (1SW) and the remaining 20% MSW. Recently the proportion is MSW in slowly growing. Anecdotal numbers of previous spawners and 3SW are being reported again in the recent years. The sex ratio within ISW is nearly 1.5 M :1 F, and within MSW is 0.6 M : 1 F.

⊕ CANTABRIA

(This information has not been received from this Autonomus Region)

2. SALMON FISHERIES MANAGEMENT

2.1. Describe the salmon fisheries in the Region (i.e. methods, locations, etc):

⊕ GALICIA

Only angling is allowed in restricted areas (named as "cotos) where fishing effort is regulated, a conservative quota is annually design, fishing season starts in may and finish in july, and only is allowed to fish salmon in 4 Galician rivers (Masma, Mandeo, Ulla, Lérez and Miño), in 2010 we allow to fish 80 salmon in these rivers. The Eo river is border with Asturias and the regulation are like the others asturians rivers (no quota and no restricted fishing areas).

⊕ ASTURIAS

The fishing presents from the forties, singular and even modern aspects of management in Asturias: the prohibition of fishing salmon in river mouth and adjacent coast, as well as the use of nets, the obligation to register the catches, the non-privatization of the fishing rights and the existence of drawings to accede to the fishing preserves.

Today, fishing practice requires a license and, within the general framework established by the law, there is annual legislation which defines the characteristics and fishing conditions in that season: duration, fishing methods, quotas, etc ... (find attached copy of the legislation of 2009 and 2010)
The abundance of the stock is being assessed by the catches rate, since it`s required to be registered, although there are other methods (meters in the rivers Eo and Sella, and assessment of stocks by genetic methods).

In the last years, the fishing season has been kept constant between late March and early July, and there have not been important changes in the allowed quotas or in the baits. The number of licenses of sport fishing for salmon is stabilized around 12.000, and the applicants of salmon preserves are around 7.000.

Due to the important reduction in the catches 2009, for the 2010 season, new and more restrictive rules have been proposed, that imply a significant reduction in the season length catches with death, a quota limitation, a baits limitation and a new rivers zoning

with incorporation of places where the sports fishing remains prohibited in the interest of the species (fishing refuges).

PAÍS VASCO

Guipuzkoa
There is no atlantic salmon catch or fishery in Gipuzkoa

Bizkaia
There is no atlantic salmon catch or fishery in Bizkaia.

NAVARRA

The only salmon fishing method in Navarre is recreational rod and line in the river from traditional angling spots located along the nver banks. The yearly Total AuthoM Catch (TAC) is between 50 to 60 rehiming salmon adults, which in turn results in a nearly 15% of exploitation rate. The fishing season usually starts the first of Apnl to end the 15" of July, or when the TAC is reached. There is no commetcial or industrial exploitation of the stock in the tiver, the estuaty or the sea in the area.

CANTABRIA

There is no professional salmon fishery, which is banned in any time in Cantabria, according to Decree 8 / 1994 of 3 March.

2.2. Provide a summary of the regulations used to control salmon fishing in the Region:

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

Asturian Government Law 6/2002, June 18th 2002, on protection of aquatic ecosystems and regulation of continental water fishing.

Annual fishing rules:
Norm of 2009 in the Official Gazette of Asturias of November 14th , 2008 (Council of Environment, Land management and Infrastructures Resolution 17th October 2008).
Norm of 2010 in the Official Gazette of Asturias of November 18th 2009 (Council of Environment, Land management and Infrastructures Resolution of November 16th 2009).

PAÍS VASCO

Guipuzkoa
There is no atlantic salmon catch or fishery in Gipuzkoa.

Bizkaia
There is no Atlantic salmon catch or fishery in Bizkaia.

NAVARRA

Each fisherman is allowed to catch only one salmon per day, using a single rod. Every catch have to be immediately declared to the Rangers and a certificate is given.

CANTABRIA

(This information has not been received from this Autonomus Region)

2.3. What future actions are planned to control salmon fishing in order to restore stocks?

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

The 2010 fishing norm, is notably more restrictive than that of 2009, being the principal included aspects the following ones:

- Establishment of permanent preserves in every basin (fishing refuge) and a river zoning that contemplates a high basin, where the season is limited with regard to the low basin, simultaneously that there is an increase of the places reserved exclusively to the modality of fishing without death (catch and release)

- Quotas: maximum 3 salmons for fisher/year.

- Reduction season: fishing season with death from May 1st to July 15th.

- Fishing season without death from the third Sunday in March to May 1st , and from Juliy 15th to July 31th. In the high zones of all the basins the fishing season without death begins on 15th June.

- Reduction of working days: two days a week without removal of any type during the whole season.

- Fishing methods: promotion of fly without death and limitation of natural baits.

Additionally, other measures have been established as:

- Increased surveillance (according to the state security forces for involvement in the fight against poaching).

- Promoting the collection of information and control over the impact of predatory species, especially the great cormorant, on salmonid populations.

- Increased restocking effort.

Finally, the Asturian Government is working on developing a Salmon Management Plan for Asturias to be adopted next year with a range of Government Order and which also will contain other measures in accordance with the objectives set out in paragraph 1.1.

PAÍS VASCO

Guipuzkoa
There is no atlantic salmon catch or fishery in Gipuzkoa.

Bizkaia
There is no Atlantic salmon catch or fishery in Bizkaia.

NAVARRA

To reinfotce measures in order to protect the MSW fraction of the stock.
The establishment of the yearly TAC in relation to reproduction and escapement objectives. To put in to practice the Catch-and-Release.

CANTABRIA

(This information has not been received from this Autonomus Region)

3. HABITAT RESTORATION, PROTECTION AND ENHANCEMENT

3.1. Do you have a plan for the protection, restoration, and enhancement of salmon habitat? If so provide an outline:

GALICIA

An enhancement of accessibility in salmon rivers is being applied since 10 years ago

ASTURIAS

At the present the Government of the Principality of Asturias is working on developing a populations management plan in the terms commented in the question 1.1.

PAÍS VASCO

Guipuzkoa
There is not an specific plan for salmon, however there are many actions taken like fish pass building, dam demolition, water quality improvement, etc. that benefits salmon populations.

Bizkaia
There is not an specific plan for salmon, however there are many actions taken like fish pass building, dam demolition, water quality improvement, etc. that benefits salmon populations.

NAVARRA

There is a plan to make more permeable the existing barriers to migration in order to favor fluvial continuity.

CANTABRIA

(This information has not been received from this Autonomus Region)

3.2. Provide a summary of the status of salmon habitat in the rivers in the Region:

GALICIA

After a serious decline in the 90's, since the year 2000 a recovery of the Galician salmon population has been detected but not enough to achieve the 80's levels.

ASTURIAS

The Asturian hydrographic network is very extensive, can be estimated that the stretches of permanent running waters, colonized by salmonids are more than 2.500 linear kilometers. Of these, less than 400 kilometers would be accessible to the salmon.

Cuencas	Superf. km2	Superf. aforada (km2)	Caudal medio anual (m3/seg)	Long de rio principal Km.	Long de rio potencialmente utilizable por el salmón
Eo	825	824,18	21,67	82	47
Navia	2552	2506,00	65,10	128	
Porcia	143	132	3,13	31	25
Negro	88	82	2,28	25	9
Esva	464	411	10,66	58	48
Narcea	1850	1705	51,8	112	85
Nalon	3043	2637	83,64	105	85
Nalon-Narcea	4893	4342	135,44		
Pigueña				40	
Bedón	80	77	3,241	16	9
Piloña		482	12,42	35	
Sella-Piloña	1278	964	30,3	70	68
Cares	496	455	21,84	59	53

· Nalón-Narcea river.

The basin of the Nalón-Narcea river has the biggest extension and flow of the Cantabrian slope, occupying all over the center of the Asturian region. The rainfall is high and the central peaks of the mountain chain exceed 2.500 meters in Peñaubiña .

The Narcea river, spanish river with the largest population of salmons, is born in the watershed of Asturias and León, in Leitariegos's Port, in the zone known as Fuentes del Narcea.

The Narcea flow fluctuations, caused by the hydraulic use of Salto de la Barca, have influence in the fluvial ecosystem and in the spawn. Also the Nalón river, born in the Caso mounts, and immediately dammed in two consecutive big preys, suffers significant flow fluctuations. But in the case of Nalon, its historical problem is linked to its flow through the greatest coal basin of Spain, running through the mining towns of Laviana, San Martin and Langreo. The Nalón receives its major tributary in its middle: the Caudal, which receives water from the great valleys of Lena and Aller and runs through the populous mining town of Mieres.

The Nalón, in its medium-low zone, has 5 medium-sized dams equipped with fish ladders. Thus, the salmon can move easily to spawn in the rivers Cubia and Trubia, some of their largest tributaries that enrich the land of the middle basin. In these fertile

plain, in proximity of the reservoir Furacón Priañes, Nalon receives Nora river, very humanized because of the contributions from the people of Oviedo city.
Another collateral effect is the sudden increase and decrease of its flow due to the releases of the dam.
Consequently, the annual average catch fishing remains low, although the construction of scales and improving water quality has allowed the entry of salmon.

To sum up, both basins, but specially Nalón, are strongly humanized. It has therefore been the subject of major investment in recent years dedicated to sanitation and treatment of its water quality, appropiate today for fish life, and series of fish ladders and stops have been made. This is a very important point to fall on, in order to continue with the complete recovery of the Nalón basin. The Narcea Nalón axis is also the most repopulated with trout and salmon in the past two decades, together with Sella river.

· Sella
This river, which competes with the Narcea for primacy in salmon catches, was born in the province of Leon, receiving high mountain waters (Caso peaks and Picos de Europa, at over 2500 meters) Ponga river, and Dobra river, with steep slopes. Clearly dominates the limestone throughout its watershed that contributes to shaping a beautiful river and mountain landscape.

In Arriondas, Sella joins the river Piloña, its major tributary, also a salmon river, and together they exceed the average annual flow 30m3/seg. The Piloña is the major tributary, being rainier river and more humanized subbasin than Sella, and which contains important water from valley farmers, where the salmon advanced nearly 30 km to the village of Infiesto, where there is a historic fish farm with a capture station. In any case the overall population of this basin is quite low, which contributes to the conservation of its banks.
Throughout their journey, Piloña and Sella rivers, run parallel to roads, to its mouth at the Cantábrico sea, in the Ribadesella estuary. Main channel length is about 70 kilometres, from the mountains to the sea.

· Cares
The origin of this river is in the Cantabrian Mountains in the Valdeón valleys (León). Travels 19 kilometers in the province of Leon, penetrating into the Picos de Europa National Park, near to Cain, where it finds the first artificial barrier, the dam used to lead water to the Hydroelectric Power Camarmeña through a centenary derivation channel of many kilometers through the heart of the Park, "The Cares Gorge". After the Gorge near Camarmeña there is another dam (Poncebos), to derive the water to the Power Plant Cabrales. These two leads, totaling nearly 20 kilometers, are the main problem for the productivity of this river, which otherwise has not yet solved its mountain rancher waste.

From Arenas de Cabrales to its confluence with the River Deva, the river reaches about 22 m3/sec of average annual flow. Salmon have numerous wells to stop. It is a stretch of rocky shores parallel to the road Panes-Cangas de Onis, sometimes steep, with transparent waters of greenish tone. In this Stretto, the old scale of the Hydropower Plant Niserias can be found, today equipped with a breeding fish capture station. It is also a historically conditioned river for fishing with plenty of walkways and river corridors that provide access to fishing positions.

The very low global population of this basin Cares, less than 5.000 inhabitants, contributes to its conservation.
From the junction with the Deva river, the river forms the boundary between the Principality of Asturias and the Cantabria Autonomous Community, and leads into the sea, forming the Tinamayor estuary.

· Esva
Little salmon river with a lenght about 58 km. Is a small silicon basin with abundant branches and tributaries rivers, and with an area of 464 km2. The contribution is clearly fluvial with maximum heights that hardly reach 1000 meters in the Fanfaraón and Las Morteras mountains. It is a sparsely populated basin which does not exceed 5.000 inhabitants, a fact that contributes to its conservation. Midway to Trevías, this river submits an annual average contribution of 10.6 m3/sec and 17 m3/sec in its river mouth.

The best places to the salmon spawning are in the middle-high zone, from San Pedro de Paredes to Brieves area, with approximately 35 km of main course accessible to salmon. In this area, there is a dam in Brieven, provided with fish ladders to help the ascent of fishes. In the lowest area, in Casielles, there is another dam that serves to divert the water into the fish farm and which is endowed with a good fish ladder and fish trap.

· Navia
Formerly it was a major salmon river because of its large river basin and length, nearly 100 kilometers. But today it is reduced to the minimum area for salmon by large dams: Salime Dam, whose reservoir pours Ibias river, the main tributary river; Few kilometers downstream from the Salime dam there is another dam, named Doiras. About 16 km downstream of the Doiras dam, the third major dam can be found, Arbon dam. As the only important tributaries in this low stretch, the Meiro river appears on the left hand and Anleo river on the right one.
Thus, the current salmon river area has been reduced to about 14 km. Another side effect is the sharp ups and downs of flow in this stretch as a result of the release of the dam. Before the construction of dams, between 1955 and 1966, it was common to find in the region about 700 salmons per season, reaching occasionally 1000. Its salmon fishery was famous in medieval times.

· Porcía
Little salmon river about 31 km long. It is a small and branched silicon river basin with abundant tributaries . The river length is 143 km2. The average annual contribution of 3m3/seg is clearly fluvial, with maximum heights that hardly reach 800 meters in the Sierra of Bobia mountains.
In the last decade, its dams of a certain height, corresponding to old mills, have been equipped with fish ladders to allow salmon passage in the first 15 km of the main course and 11 km of tributaries rivers.

· Bedón
Little salmon river about 16 km long. It is a small calcareous basin with an area of 80 km2. The average annual contribution of 3m3/seg is clearly fluvial, with maximum heights that hardly reach 500 meters.
In the last decade, its dams with certain height have been equipped with ladders to allow salmon passage in the first 8 km of main course and 6 km of tributaries.

The river has two trout preserves near the river mouth of San Antolin de Bedon, which occasionally provide salmon catches, whose presence is more observable every winter spawning.
It is a sparsely populated basin, exceeding scant three thousand inhabitants, mostly established outside the vicinity of the river course, in the coastal zone, which contributes to their conservation.

PAÍS VASCO

Guipuzkoa
In the past water quality was one of the most limiting factors. Nowadays accessibility problems (dams) and hydroelectric uses are the main limiting factors.

Bizkaia
In the past water quality was one of the most limiting factors. Nowadays accessibility problems (dams), low water level, and hydroelectric uses are the main limiting factors.

NAVARRA

During the last decade, the efforts to reduce the upstream migration barriers have significantly improved the salmon accesibility of the Bidasoa River basin upstream reaches. Briefly, in 2001 the Bidasoa main course river length in Navarra that was accesible for salmon was 2.4 km (4%) whilst additional68 km (17%) were accessible with difficulties. By the end of 2009,16.8 km (27.6%) will be accessible and additional28,l km (46%) will be accessible with difficulties. Similarly, from only 4.7 km (1,5%) of tributaries accessible in 2001, nearly 66 km (20.4%) will be accessible by the end of 2009 for retuming salmon adults.

CANTABRIA

(This information has not been received from this Autonomus Region)

3.3. What co-ordination is there between relevant bodies to exchange information on habitat issues and share best management practice?

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

The coordination with river basin organizations (Cantabrico Hydrographic Confederation) for performances in the river environment and defending the public domain is clear and real.

There is coordination with the agencies responsible for fisheries in Cantabria and Galicia to the management of the activity in the shared border river Deva and Eo.

There is a working group with all the CCAA with salmon in their rivers to suggest measures for improve the management.

There is public participation and management consulting with fishermen and other stakeholders through the Advisory Board of Inland Water Ecosystems and Inland Fisheries of Asturias.

PAÍS VASCO

Guipuzkoa
(This information has not been received from this Autonomus Region)

Bizkaia
(This information has not been received from this Autonomus Region)

NAVARRA

(This information has not been received from this Autonomus Region)

CANTABRIA

(This information has not been received from this Autonomus Region)

3.4. What activities are underway or planned to improve salmon habitat?

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

The recovery of water quality is being promoted, an aspect that is into relation with the objectives of the Water Framework Directive, to achieve a good ecological water status and the creation of a Monitoring Network quality by biological parameters as the fish.
To achieve this objective of good ecological status, sanitation programs in river basins exists as well as actions to prevent diffuse pollution by agricultural and livestock or industrial waste.

The removal of those obstacles which involve a river impact by populations fragmentación is being promoted too. Thus, an inventory of the river obstacles that impede the passage in the river network has been promoted, and phased actions are being carried out to the disposal or improvement of these obstacles.
Similarly, improved performances are held in the riverbank vegetation, adapting to the circumstances of each case.

It promotes the recovery of water quality, an aspect that is into relation with the objectives of the Water Framework Directive, as to achieve good ecological water status and the creation of a Monitoring Network quality by biological parameters as the fish.

PAÍS VASCO

Guipuzkoa
A dam demolition may be done in 2010 in the Urumea river.

Bizkaia
A fish ladder build may be done in 2010 in the Lea river.

NAVARRA

(This information has not been received from this Autonomus Region)

CANTABRIA

(This information has not been received from this Autonomus Region)

4. AQUACULTURE AND MOVEMENTS OF FISH

4.1. Provide a summary of aquaculture, introductions and transfers (including stocking) activities in your Region:

GALICIA

Salmon aquaculture in Galicia disappeared 15 years ago, but a new Norwegian project has restart in the Arosa Ría recently. Salmon stocking is done annually in several rivers in order to enhance populations.

ASTURIAS

There is no commercial salmon aquaculture. Fish farming is done only for restocking. The restocking made in recent years in Asturian rivers are:

AÑO	SELLA	NARCEA	DEVA-CARES	ESVA	NAVIA	EO	BEDON	PORCIA	NALON	TOTAL.
1993	26.825	11.700	3.650	10.900						53.075
1994	13.600			13.000		3.500	4.000			34.100
1995	31.500	141.000	18.000	7.000		3.500				201.000
1996	56.000	72.000	36.000	16.400	4.400	1.500				186.300
1997	121.400	67.800	36.000	7.300		11.500				244.000
1998	306.981	106.800	128.500	10.000	0	20.300	0	0	0	572.581
1999	491.000	174.000	98.000	19.000	0	47.000	0	0	44.000	873.000
2000	448.700	97.000	144.000	9.800	0	8.500	0	0	0	708.000
2001	306.000	158.200	10.950	29.400	0	26.000	0	0	0	530.550
2002	399.300	189.100	105.400	58.200	16.700	25.000	0	0	0	793.700
2003	293.200	123.600	105.260	4.000	3.500	0	0	0	14.100	543.660
2004	455.090	344.000	174.839	64.000	0	0	0	0	0	1.037.929
2005	393.001	375.700	256.901	97.300	0	42.000	0	0	0	1.164.902
2006	514.000	457.500	183.252	76.400			0	0	0	1.231.152
2007	307.986	470.200	76.858	23.900			0	15.000		893.944
2008	393.026	192.000	46.000	20.000						651.026
2009	225.000		80.000							305.000

PAÍS VASCO

Guipuzkoa

Hatchery origin parr and smolt stocking every year. Adult captured in traps in Oria and Urumea rivers are the breeder stock for hatchery.

Bizkaia
Hatchery origin parr and smolt stocking every year. Adult captured in traps in Lea and Barbadun rivers are the breeder stock for hatchery.

NAVARRA

There is only one commercial aquaculture facility in the Bidasoa River basin that produces rainbow trout. There is only one fish hatchery owned and managed by the Govemment of Navarra within the Bidasoa River Basin producing native brown trout and salmon for stocking of the Bidasoa River. Both brown trout and salmon stocks are of native, wild origin. Every winter season a proportion of returning adults are captured from the Bidasoa River to use as parental stock in this hatchery. Additionally, effort for the survival of previous spawners are made in order to use the in successive reproductions. The annual production is nearly 150,000 eggs that finally result in 70,000-90.000 parrs to stock.

CANTABRIA

(This information has not been received from this Autonomus Region)

4.2. Describe measures taken to limit the impact of freshwater aquaculture on rivers and wild fish stocks:

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

For limiting impacts, the Administration of the Principality of Asturias, only restocks the waters with healthy fishes and native varieties, bred in fish farms established in the region.

PAÍS VASCO

Guipuzkoa
(This information has not been received from this Autonomus Region)

Bizkaia
(This information has not been received from this Autonomus Region)

NAVARRA

There is no commercial freshwater salmon aquaculture in the Bidasoa River basin.

CANTABRIA

(This information has not been received from this Autonomus Region)

4.3. Describe the procedures used to regulate or manage stocking of salmonids or other species

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

Fish monitoring is carried out in fish farms for restocking, with health and genetic analytical.
In this respect all I+D+i institution have sampling and analytical plans for disease control according to Directive 2006/88/EC, Council of 24 October 2006 on animal health requirements for animals and aquaculture products, and the prevention and control of certain diseases transposed by Royal Decree 1614/2008.

There is an identification program that focuses specifically on the notifiable viral diseases, VHS and IHN as well as IPN and Gyrodactylus without eliminating the most common and harmful bacteria.

PAÍS VASCO

Guipuzkoa
(This information has not been received from this Autonomus Region)

Bizkaia
(This information has not been received from this Autonomus Region)

NAVARRA

Al1 management actions including artificial reproduction, rearing and stocking of salmon (and brown trout) in Navarra are made by the Department of Rural development and of the Environment of the Government of Navarra.

CANTABRIA

(This information has not been received from this Autonomus Region)

4.4. What future actions are planned to limit adverse effects of aquaculture or stocking activities?

GALICIA

(This information has not been received from this Autonomus Region)

ASTURIAS

(This information has not been received from this Autonomus Region)

PAÍS VASCO

Guipuzkoa
(This information has not been received from this Autonomus Region)

Bizkaia
(This information has not been received from this Autonomus Region)

NAVARRA

As the area occupied by the salmon and its wild production is improved within the Bidasoa River basin, the stocking efforts are planned to decrease acordingly.

CANTABRIA

(This information has not been received from this Autonomus Region)

5. MONITORING

5.1. Provide a summary of activities to monitor the status of stocks and the effectiveness of management measures.

GALICIA

Galician Salmon populations are monitored through the study of the fishery statistical records obtained since 1950, and the fish traps situated in several salmon rivers.

ASTURIAS

Meters:

Besides fishing data, salmon management is based on data obtained from meters or capture stations. There is a draft plan to increase the number of capture stations and meters, being the current situation and objectives as follows:

1 Caño Station (Sella):

Remodeled between 1997-2000, with meter installed since 2003.

Meter in capture station since 1998.

2 Cares Capture Station Cares in Niserias:

Remodeled in 1997, the instalation of a meter facility in the first quarter of 2010 is being planned.

3 Eo Station, Viña Pé -bordering Galicia-

Its renovation was completed in 2001. Spawning management in this river is shared with Galicia. Meter installed and operated from Galicia.

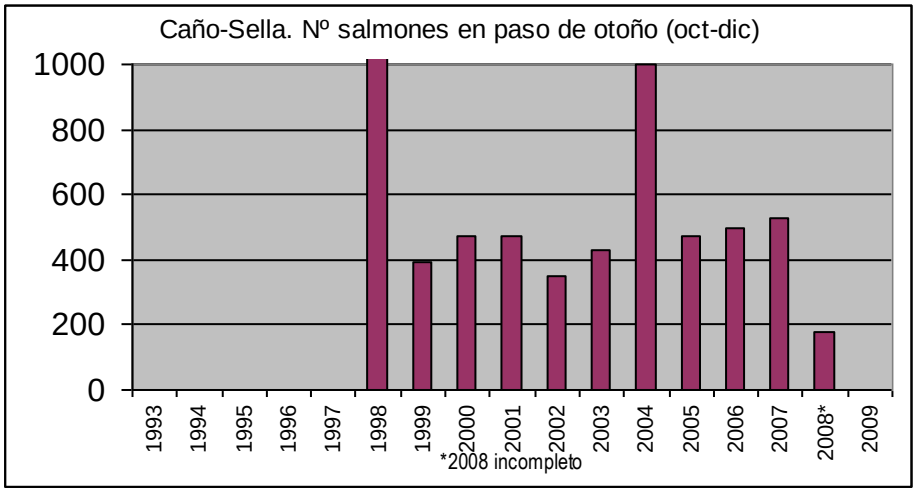
4. Esva Station on Casielles

Remodeled in 2009. Meter facility is planned to run in the first quarter of 2010.

5 Nalón Valduno capture Stations:

Builded in 1999-2000 in the existing dam, capture stations should be installed. Planned meter facility in the first quarter of 2010.

Data provided by the Sella capture station :



Monitoring the effectiveness of restocking: Percentage of restocking returns

Since 1993 to 2008 about 1.250.000 fish were tagged, 650 adult fish tagged returns are obtained. That means that the rate is 0,52 per thousand recovered specimens from catched or autumn fishes. This rate could be multiplied at least per 3, if we estimate that catched fish rate for total. If we apply this in Sella river, the rate is estimated at 0,54 per thousand..

Other research activities:

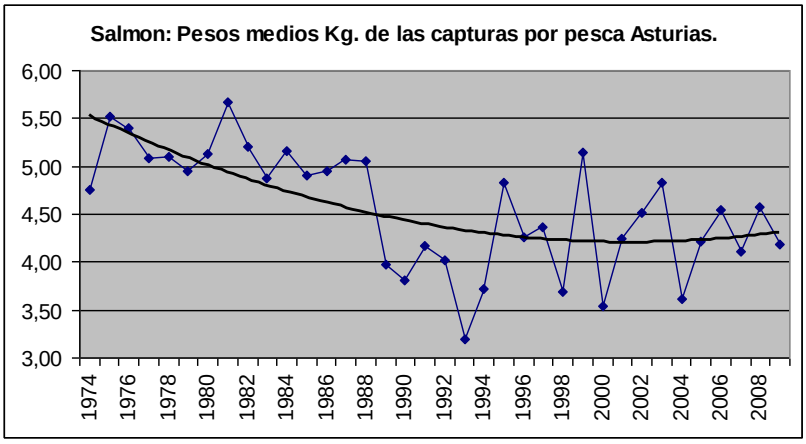
The research applied to conservation of trout stock and their habitat is being promoted, and in particular by advancing in the general study on the species, and issues related to their stock dynamics and ecology.

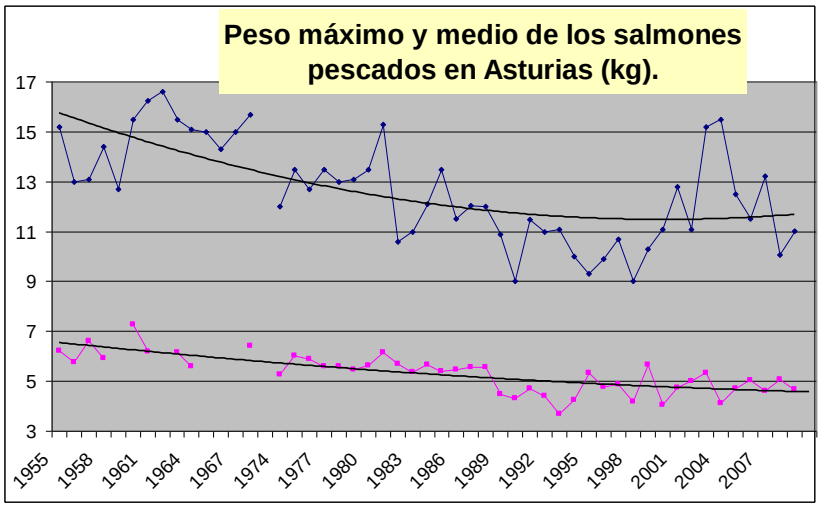
It's necessary to encourage coordination among researchers, developing protocols and encouraging research projects under colaboration agreements with Oviedo University and other research centers.

Fishing:

The fisheries management, which requires the seal up of all caught salmons, allows for numerous data on the age of salmon, their weight, health status, etc.

Sample weights:





PAÍS VASCO

Guipuzkoa

- Adult monitoring by traps.
- Spawning activity, redd counting.
- Salmon hatchery with Urumea and Oria stock.
- Salmon parr and smolt stocking with Urumea and Oria stock.
- Juvenil monitoring by electrofishing
- Adult radiotracking (2003-2005), fish pass testing and habitat use in Urumea river.
- Adult radiotracking (2008), fish pass testing and habitat use in Oria river.

Bizkaia

- Adult monitoring by traps.
- Spawning activity, redd counting.
- Salmon hatchery with Lea and Barbadun stock.
- Salmon parr and smolt stocking with Lea and Barbadun stock.
- Juvenil monitoring by electrofishing

NAVARRA

1. Control of the catches in the recreational fishery;
2. Monitoring of the returning adults in the upriver migration trap;
3. Monitoring of juveniles;
4. Reed count surveys;
5. It is planned for early 2010 the installation of a rotary screw trap to monitor the downstream migration of smolts;
6. It is planned the adquisition and installation of a Vaki RiverWatcher to non-intrusively monitor the adult returns.

CANTABRIA

(This information has not been received from this Autonomus Region)