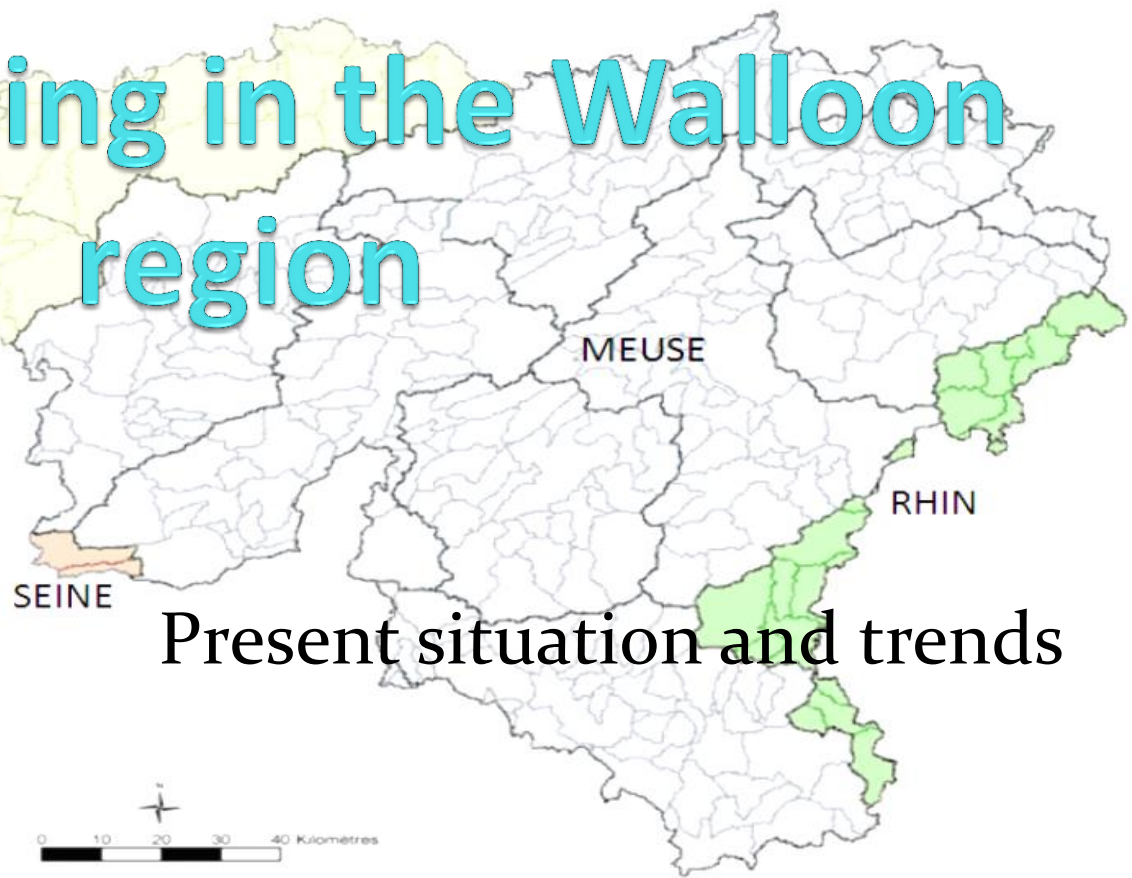


Fish farming in the Walloon region



Ducarme Christian
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www.cfwp.be

CFWP: Conseil de Filière Wallonne Piscicole (ASBL)

Our mission:

Help to develop the **production**, **processing** and **sale** of aquaculture products in the Walloon Region.

Supported by the Walloon Government



1/ The markets:

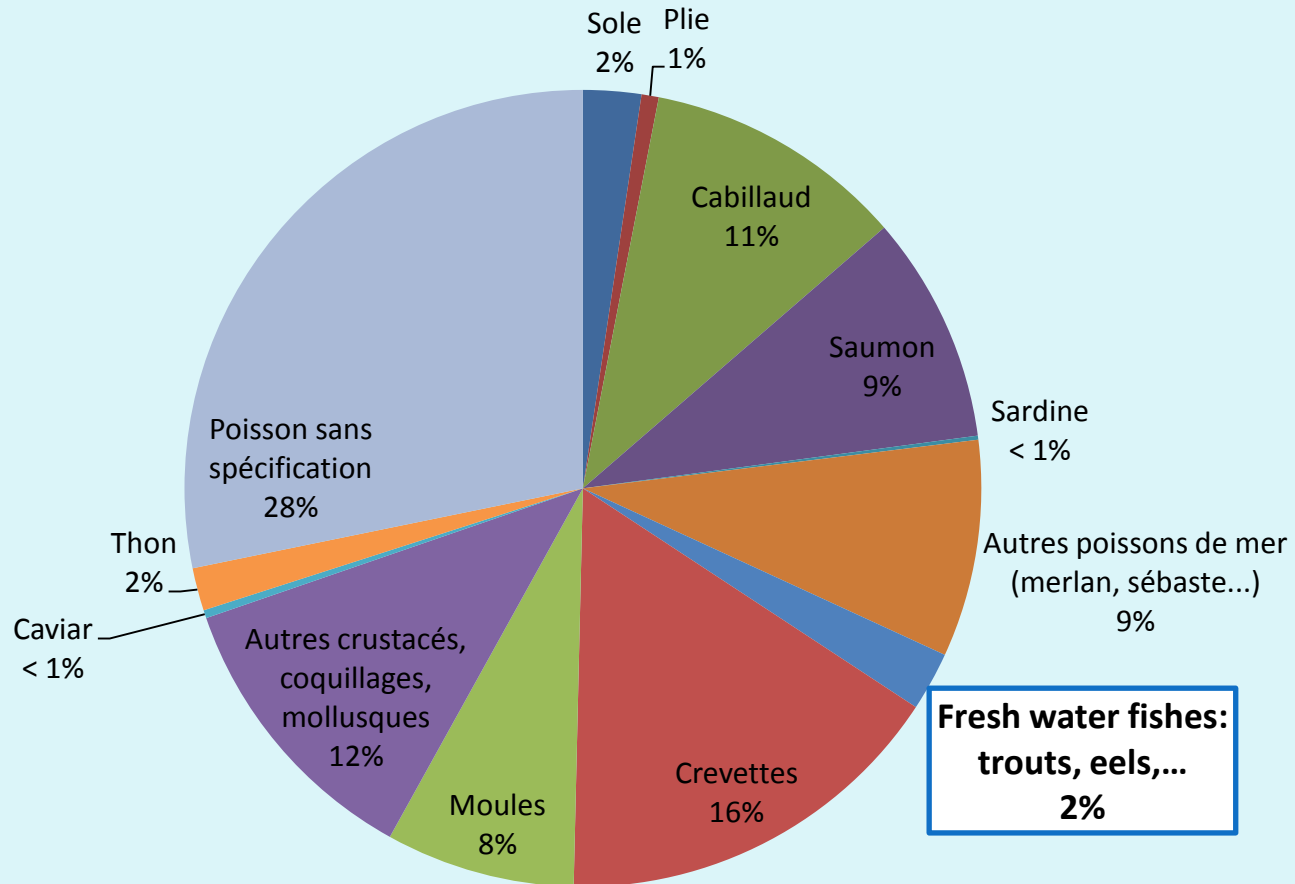
- Consumption
- Restocking
- Ornamental
- baits

Total sea Food expenses in the Walloon region and Belgium (1999 - 2006)

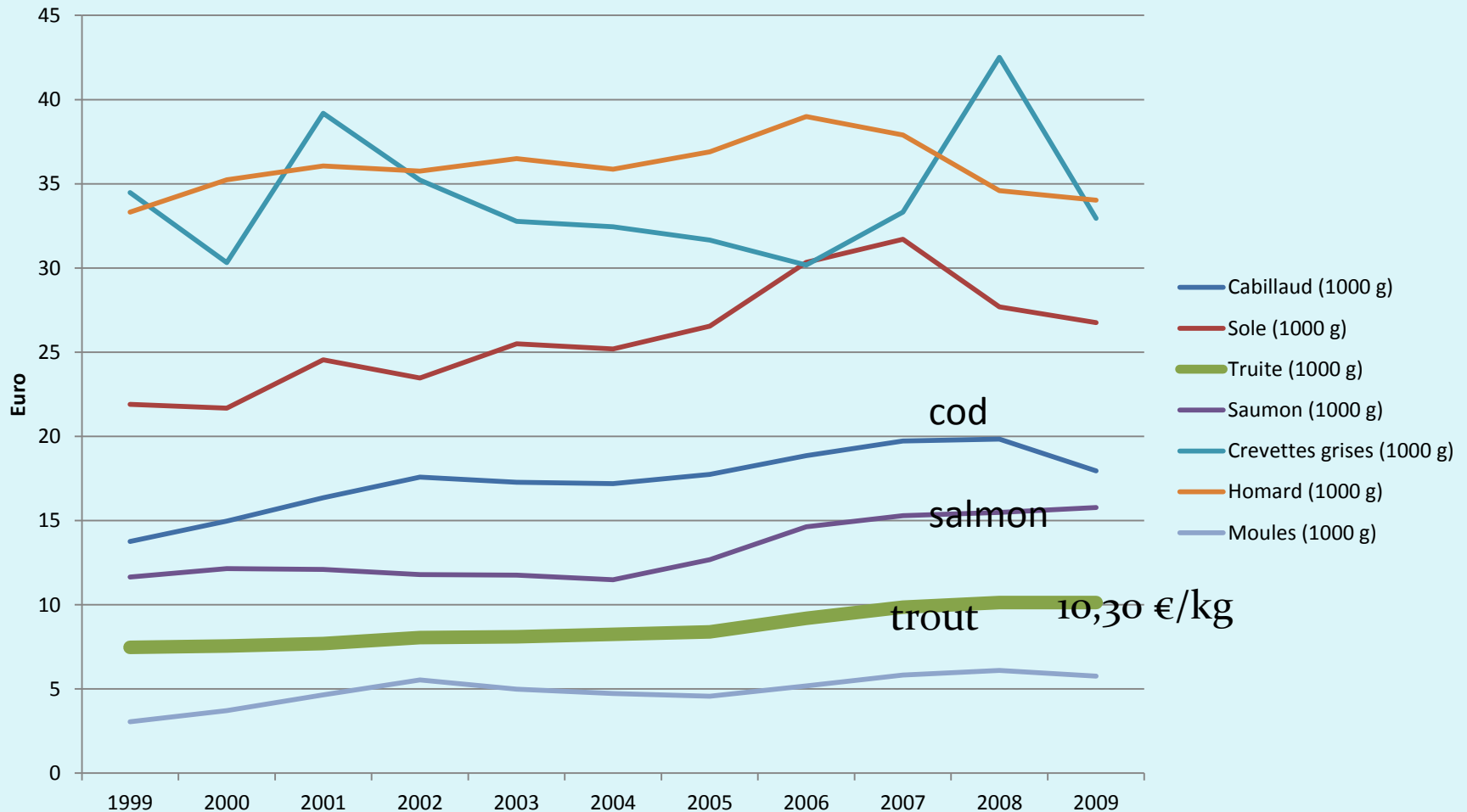
Source : OCA, GxABT d'après l'Enquête du Budget des ménages

	Total expenses : 1000 €					
Sea food	Walloon region			Belgium		
	1999	2006	%(99-06)	1999	2006	%(99-06)
Fresh	142.137€	181.726 €	+27	477.146€	587.714 €	+23
deep frozen	30.956 €	39.739€	+30	112.923€	134.712 €	+19
canned	26.688€	29.708 €	+11	70.186€	75.495 €	+7
Salted, Smoked	21.334 €	26.951 €	+26	66.246 €	101.687 €	+ 53
Ready to cook	17.744 €	27.345€	+ 54	98.810€	132.152€	+33
Organic	NA	338 €		NA	2.164 €	
Total	238.924 €	305.809 €	+28	825.395€	1.033.926€	+25

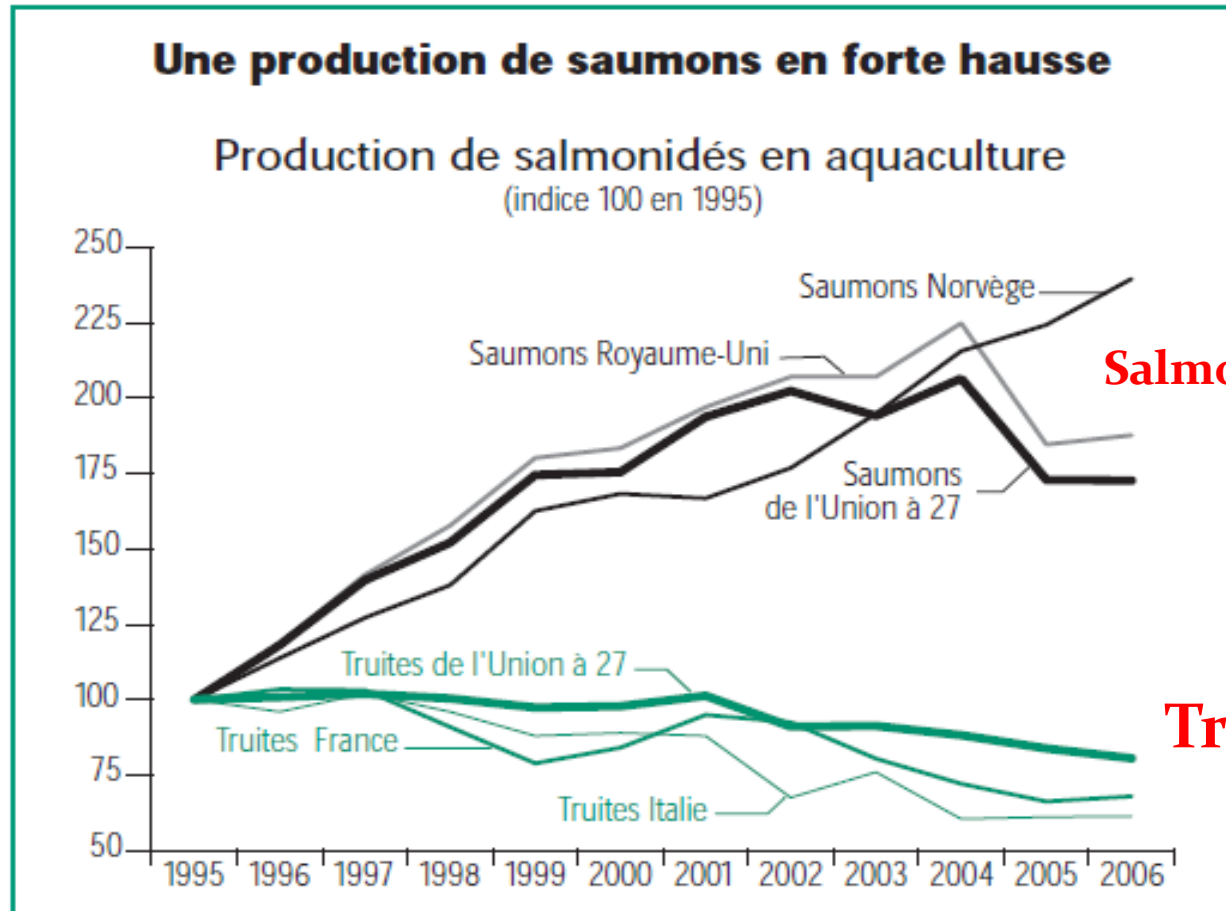
Fresh Sea food purchases in the walloon region (2006)



Prices average for fresh sea food in Belgium (Eur/kg)



Salmonids production in Europe



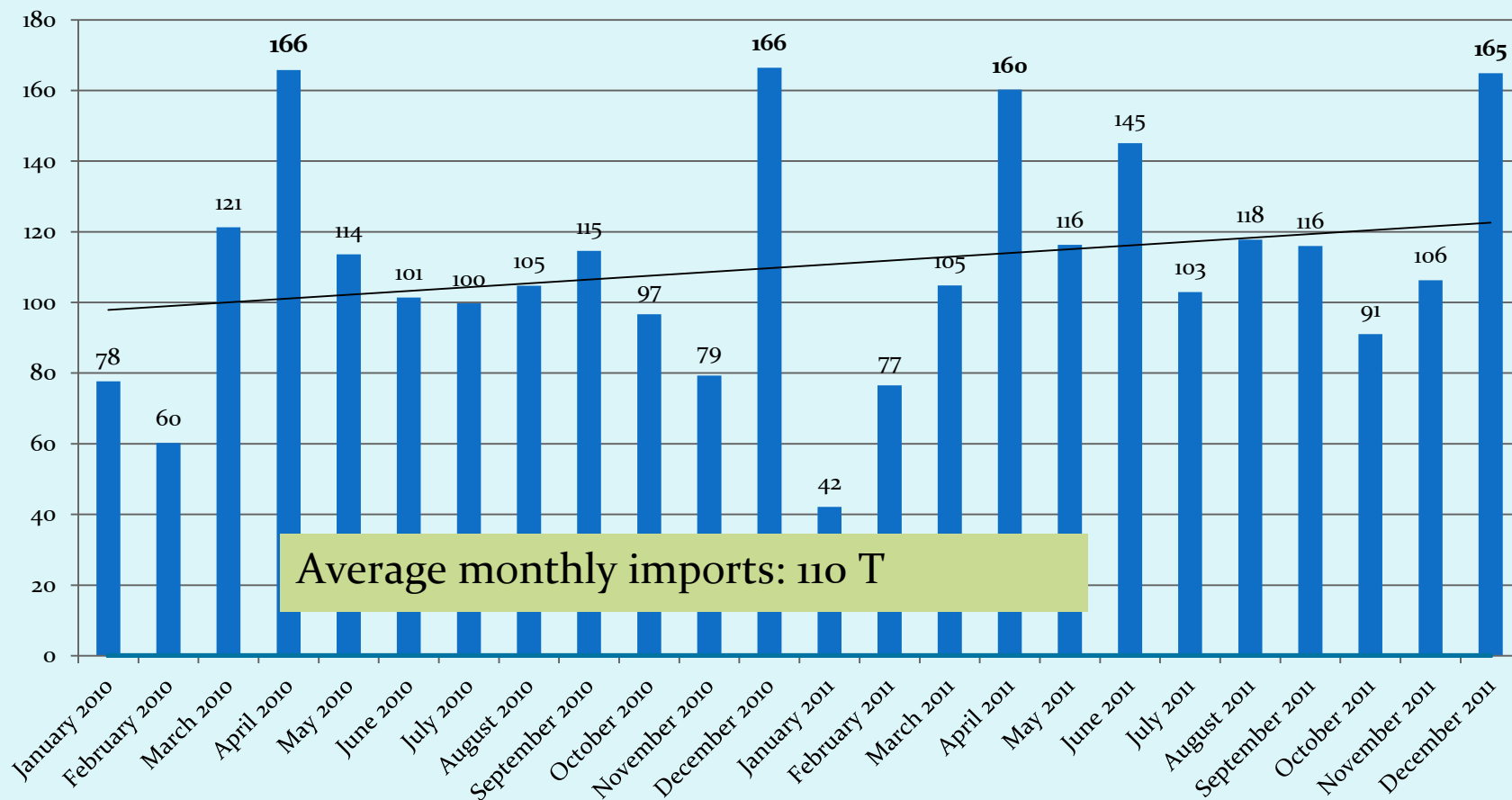
Source : Eurostat

Salmon ↗

Trout ↘

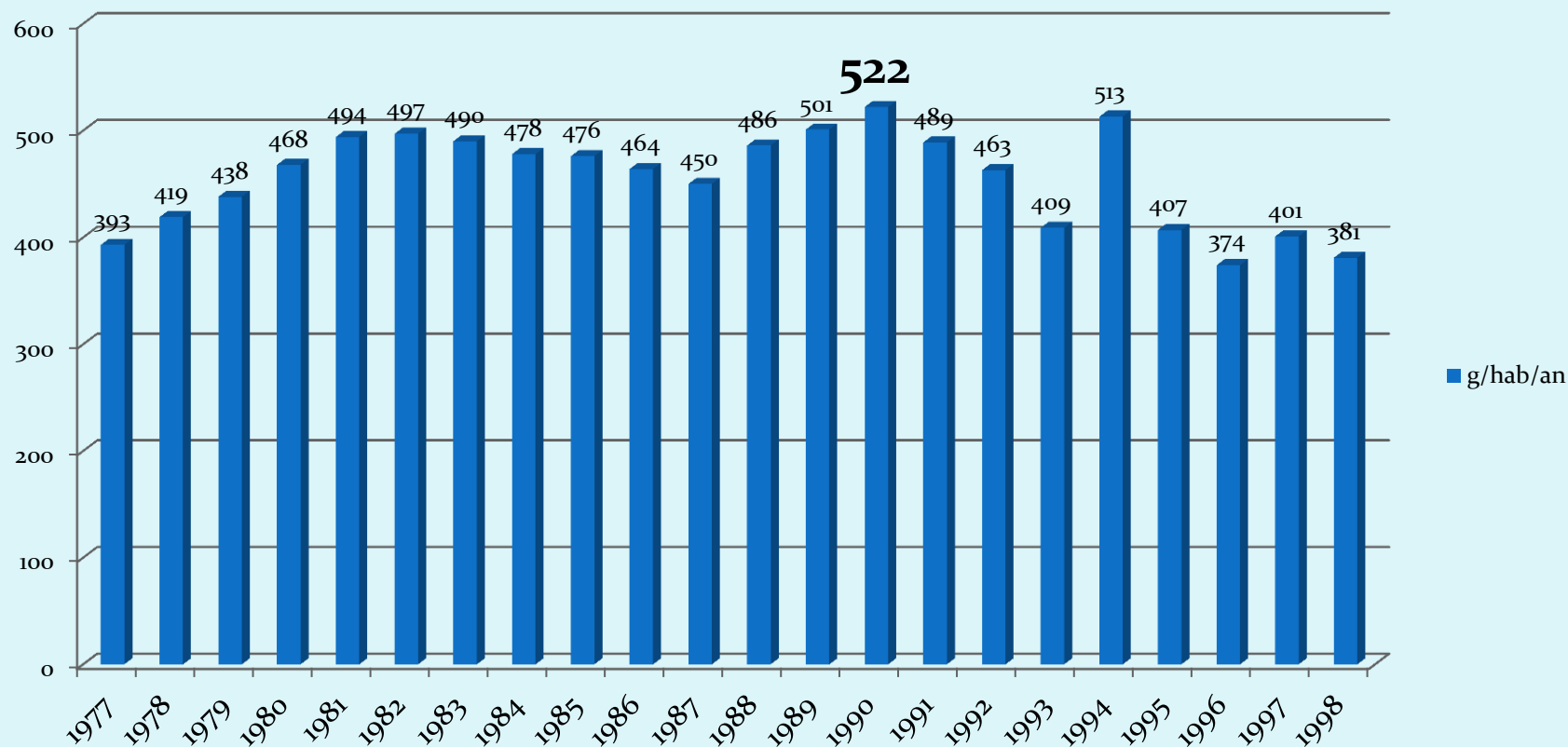
Trout importation in Belgium (T)

1320 T /Y 2010-2011 (5000 t in 1979)



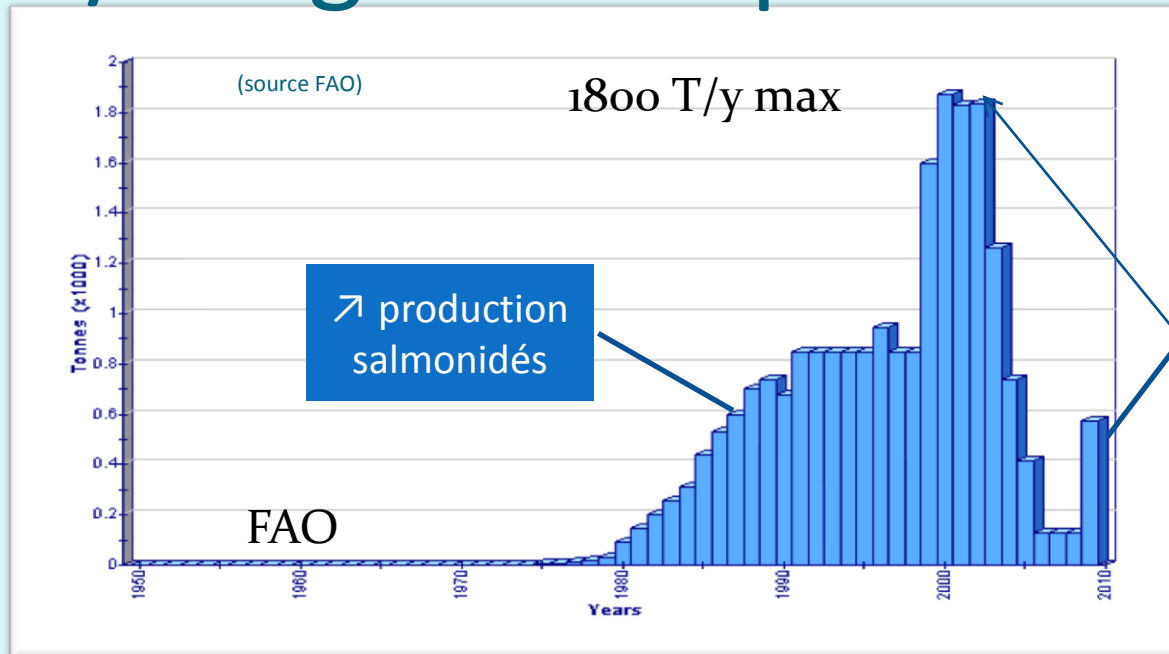
Trout consumption in Belgium per capita 1976 à 1998

g/capita/Y

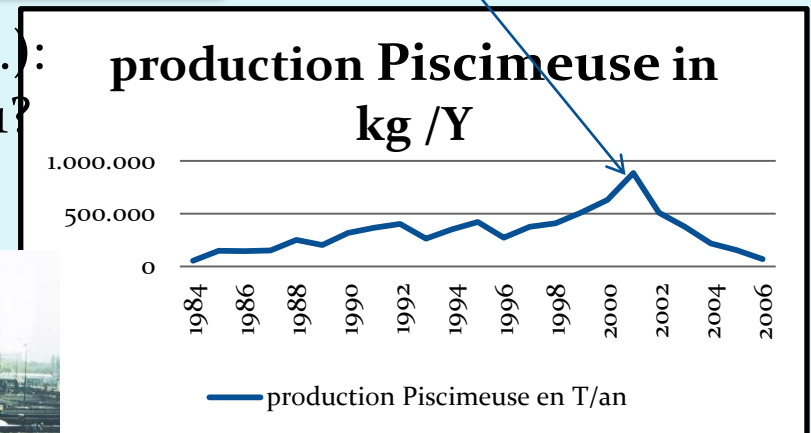


Source: X. Rollin & al. 2001

2/ Belgian Fish production



Total production in walloon region (W.R.):
300T all species of fishes included in 2011?



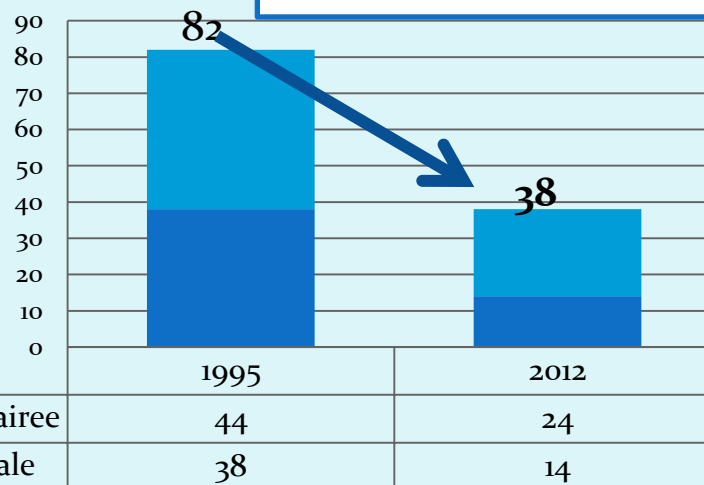
Traditional belgian fish production

- **North part:** cyprinids: Bellefroid, Vandeput, Bijmens, ...
- **South part:** salmonids: 1889 In Freux: first farm. Gabriel, de Fierlandt, Collette, Snoek,... (100 farms in the 80th)

Main activity
Secondary activity

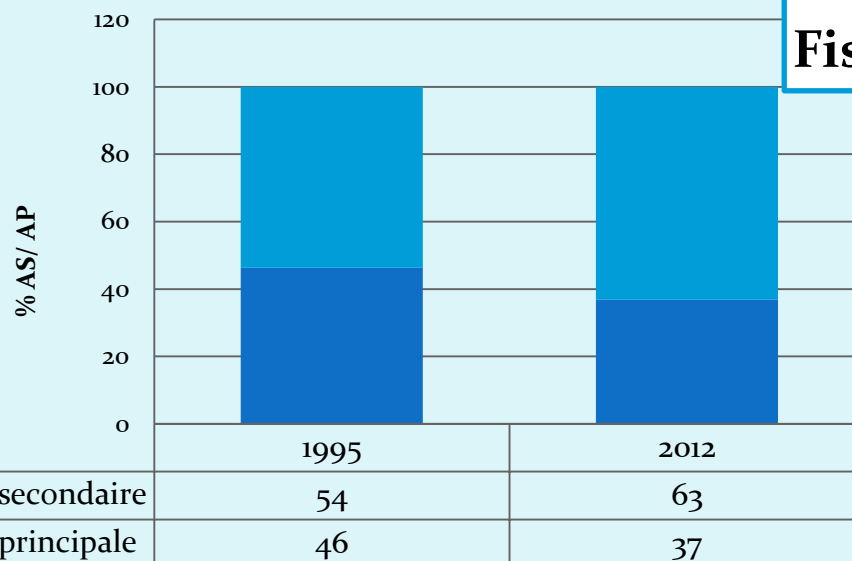
nombre

of fish farms in W. R.



Source AFSCA

Fish farms in W. R. % MA/ SA

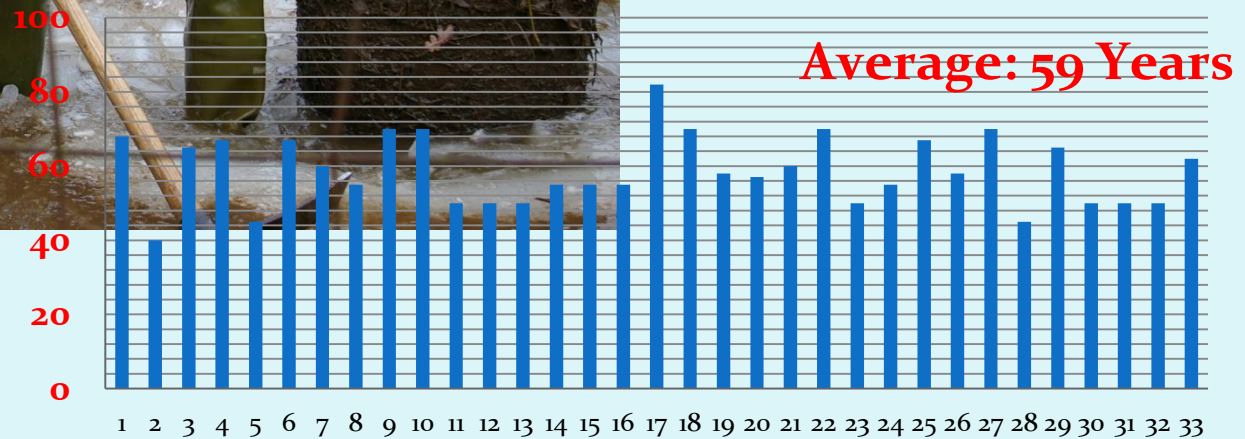


Source AFSCA FAVV

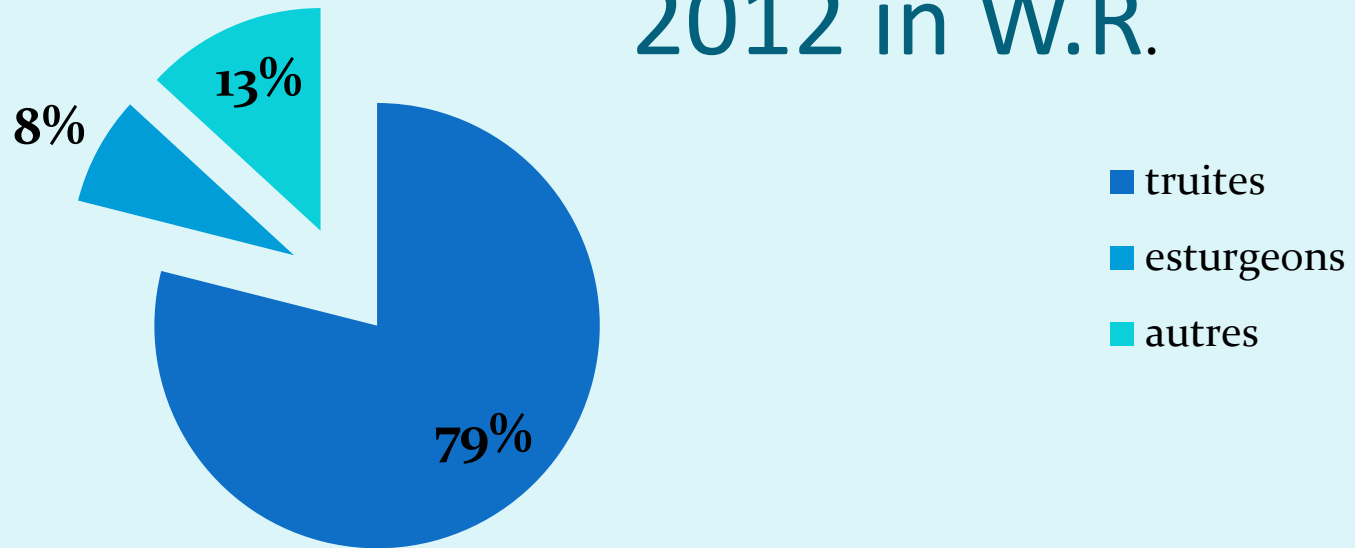
A fish farmer; President of the CFWP



Age of the fish farmers in WR



% of fish farm by species in 2012 in W.R.



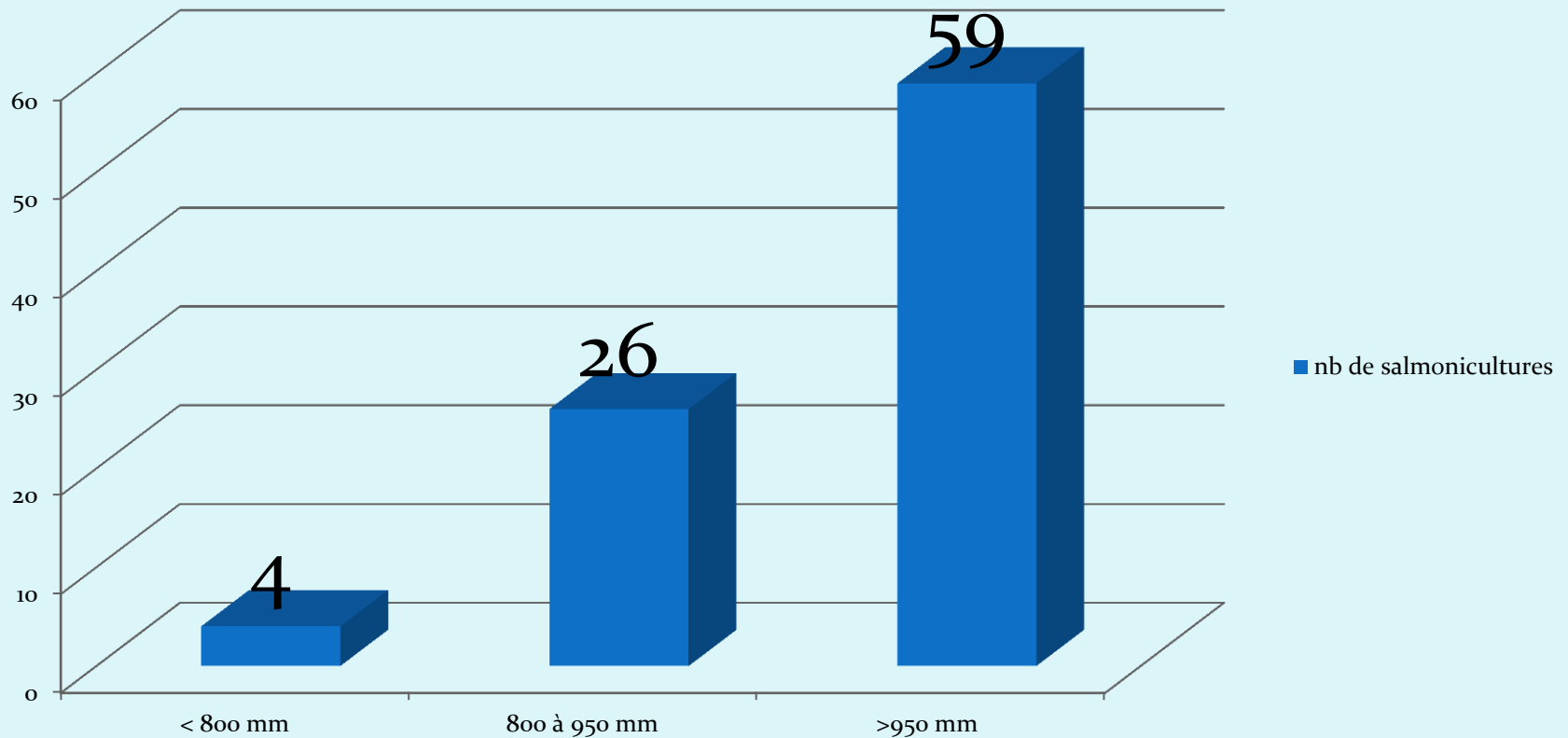
Trouts: *Oncorhynchus mykiss*; *Salmo trutta*; *Salvelinus fontinalis*

Other: pond fishes, bait fishes, gold fishes, kois...

% of Fish farms by provinces in WR

PROVINCES	% in 2000	% in 2012
Brabant wallon	5	2.4
Namur	21	17
Hainaut	5	9.6
Liège	16	24
Luxembourg	53	46

Number of trout farms related to rain falls in 2000.



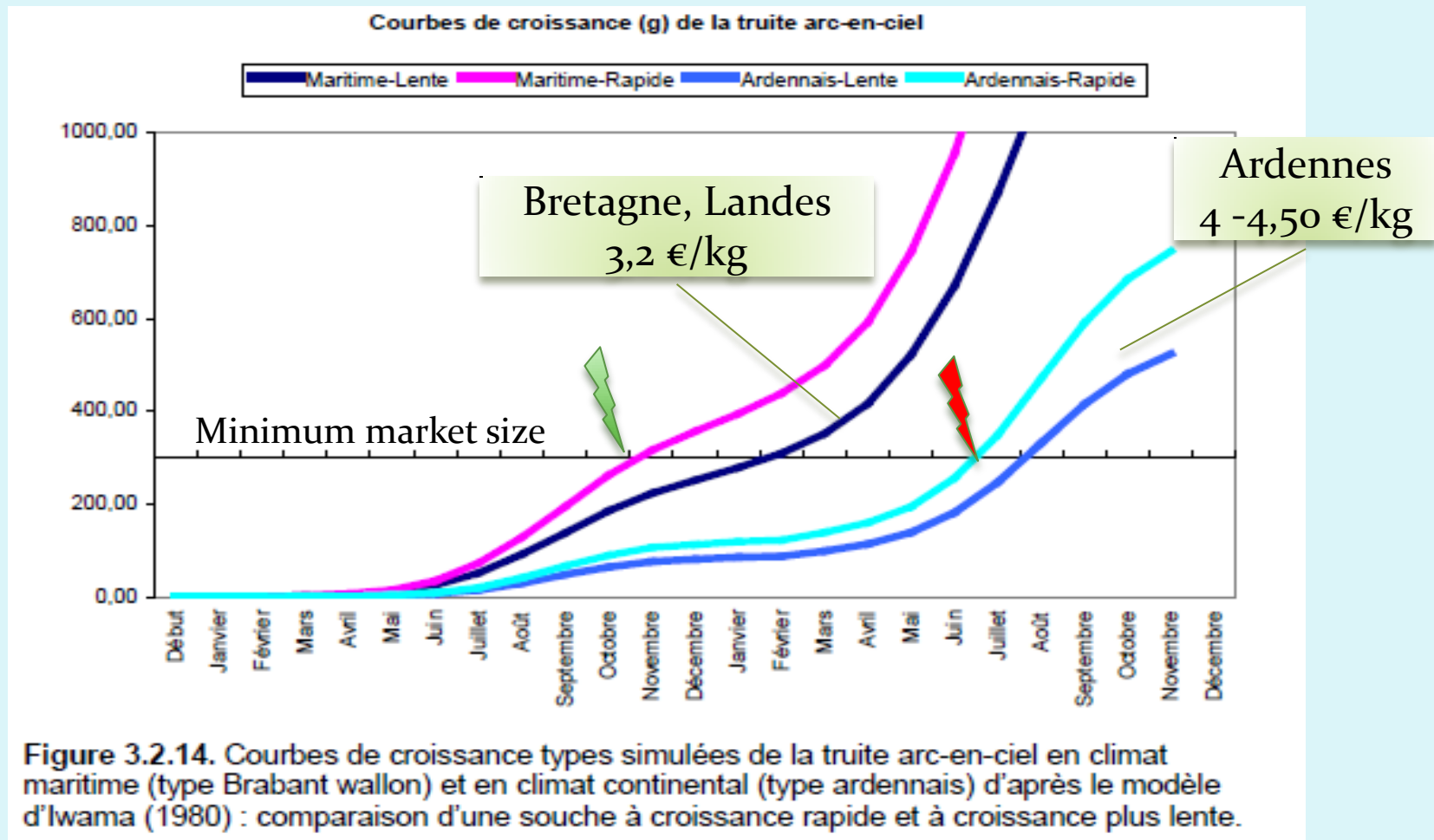
Chaque classe de pluviosité représente une superficie similaire.

Source: X. Rollin & al. 2001

Walloon salmoniculture issues

- Seasonal t° differences: cold in the winter, warm in the summer → far from optimum/ growth
- Small rivers, flooding in the winter
- Difficult to upscale → high operating costs
- Difficult to compete with imports

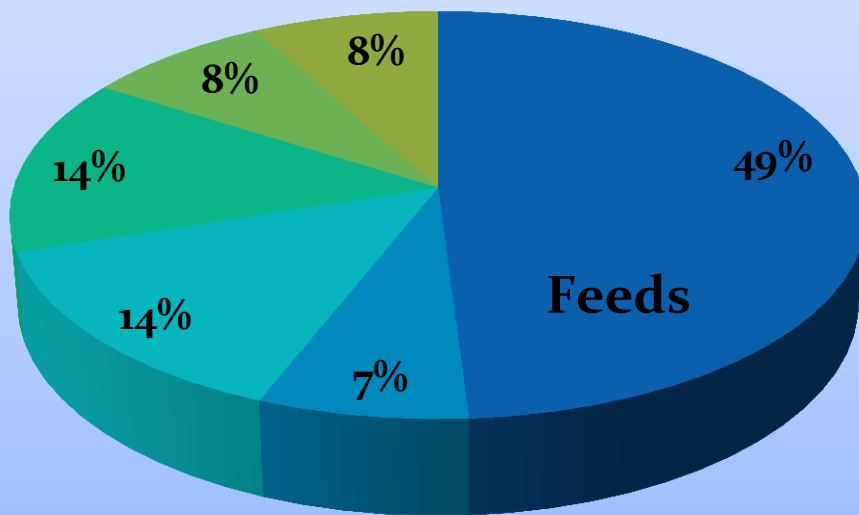
Growth curve (Oncorhynchus mykiss) related to T°



Source: X. Rollin & al. 2001

Production cost in WR: Rainbow trout

Rainbow trout in Race Ways minimum: 4,00 €/kg



- nourriture par Kg produit
- amortissements par kg
- énergie et taxes par kg
- main d'œuvre par kg
- alevins par kg
- autres biens et service + charges financières

Solutions

- Niche markets
 - Rivers and lake restocking
 - Angling ponds
 - Local restaurants, direct sales
 - High standards → “truite Ardenne”; Organic products ?
- Other productions
 - Sturgeon
 - Bait fish
 - Ornamental,
 - Welcome at the fish farm (B&B)
 - ...

La fontaine aux truites SA



**Trout fish farm:
restocking and sport
fish**

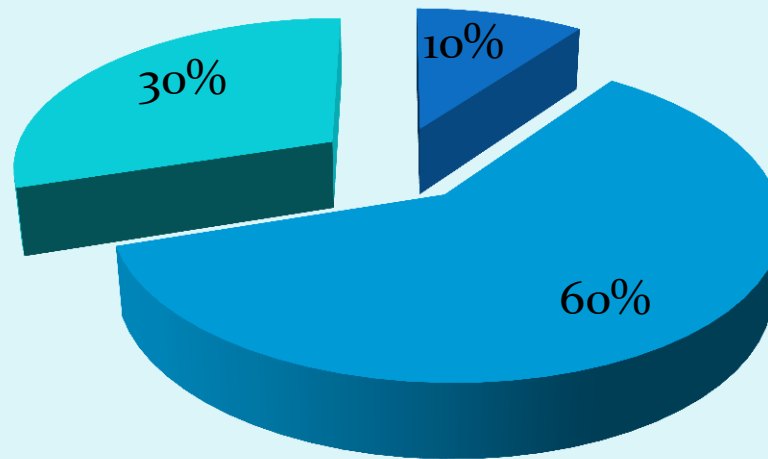


Final markets for the trout production in % in 2012 for the W.R.

Restocking of « closed water » (ponds,...)

Restocking of « closed water » and « open water » (rivers)

Restocking and consumption





Salmo trutta: sole trout for river restocking south of the Sambre/Meuse axe

Salvelinus fontinalis



Oncorhynchus mykiss



Oncorhynchus mykiss

Restocking in open water (in kg)

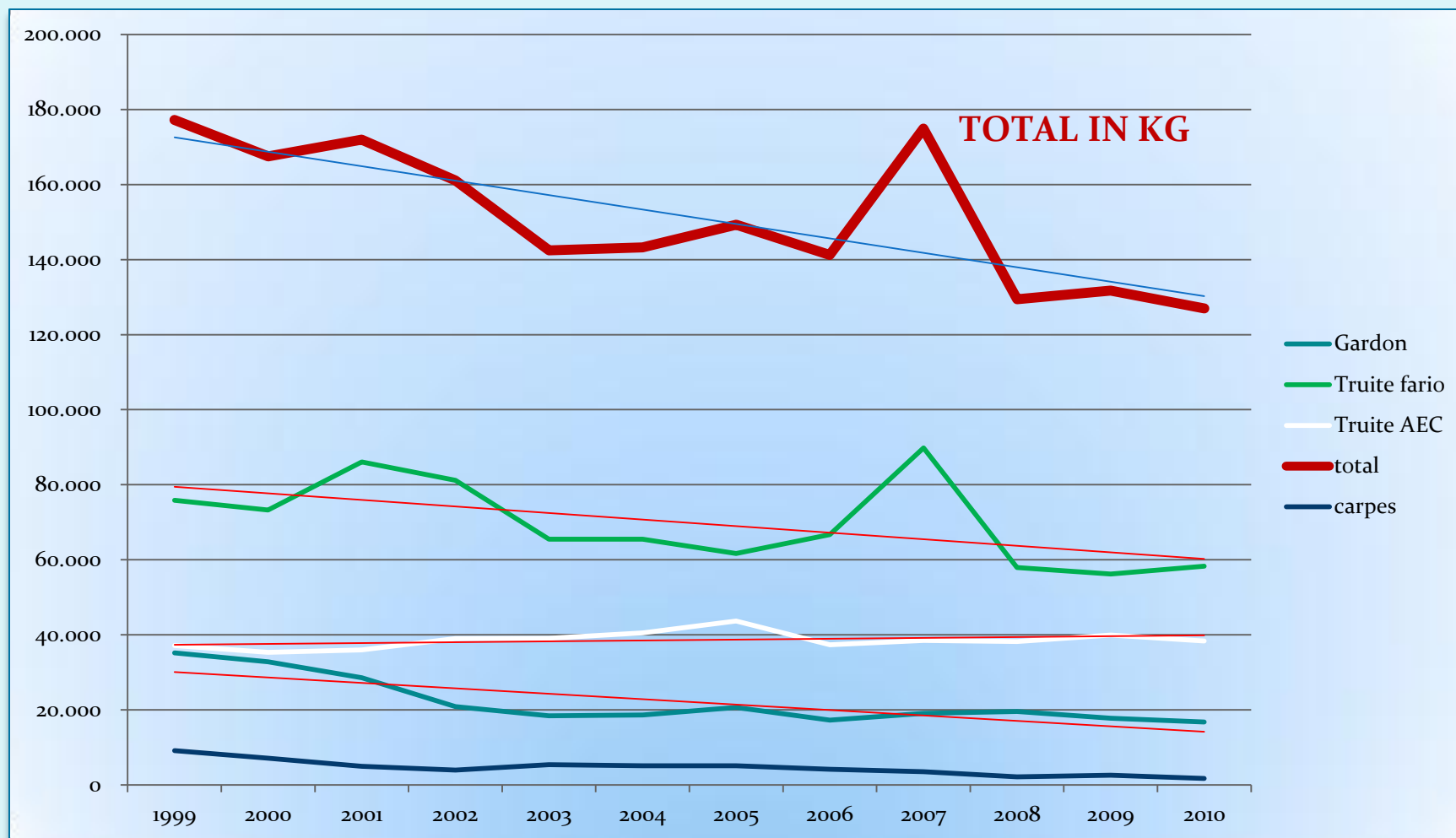
Fonds Piscicole + Fédérations de pêcheurs

Sources: Service de la Pêche – DNF – DGARNE – SPW, août 2012

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Eel	1.268	455	166	95	77	311	324					50
Bream	2.120	1.160	2.361	5.190	4.006	3.199	5.388	3.478	2.989	2.105	5.556	3.527
Pike	772	945	1.882	1.271	835	3.662	2.569	803	1.993	1.317	2.133	2.022
Crussian carp	92	495	200	385	630	122	160	869	12.410	1.104	1.474	1.213
Carp	9.135	7.169	4.964	4.012	5.422	5.120	5.143	4.242	3.592	2.189	2.651	1.760
Roach	35.240	32.820	28.616	20.923	18.426	18.662	20.671	17.308	19.083	19.597	17.778	16.803
orf	3.676	1.806	1.411	1.270	2.307	557	916	2.483	1.039	1.952	150	566
Perch	3.559	4.811	3.979	2.809	1.853	2.216	2.401	2.713	2.035	1.727	1.042	1.523
Rudd	avec gardons	1.466	1.355	1.051	1.482	1.568	1.331	1.658	154	405	2.009	462
Pikeperch	0	50	50		50	0	115	50	50	50	100	50
Atlantic salmon	0	0	0	0		0	0	100	0	0	100	0
Brook charr	790	1.260	1.340	775	800	450	650	500	450	470	210	360
Tench	7.508	7.053	4.503	3.825	3.280	2.703	5.541	4.531	2.572	2.366	3.444	2.272
Fario	75.881	73.276	86.081	81.160	65.525	65.489	61.673	66.713	89.804	57.968	56.221	58.330
Rainbow trout	37.132	35.362	36.023	39.050	39.121	40.548	43.680	37.404	38.509	38.237	39.979	38.368
total	177.173	167.500	171.950	161.084	142.451	143.242	149.253	141.199	174.873	129.399	131.738	126.945

Restocking in open water (kg)

Source: Service de la Pêche – DNF – DGARNE – SPW, août 2012



Restocking in open water (in #)

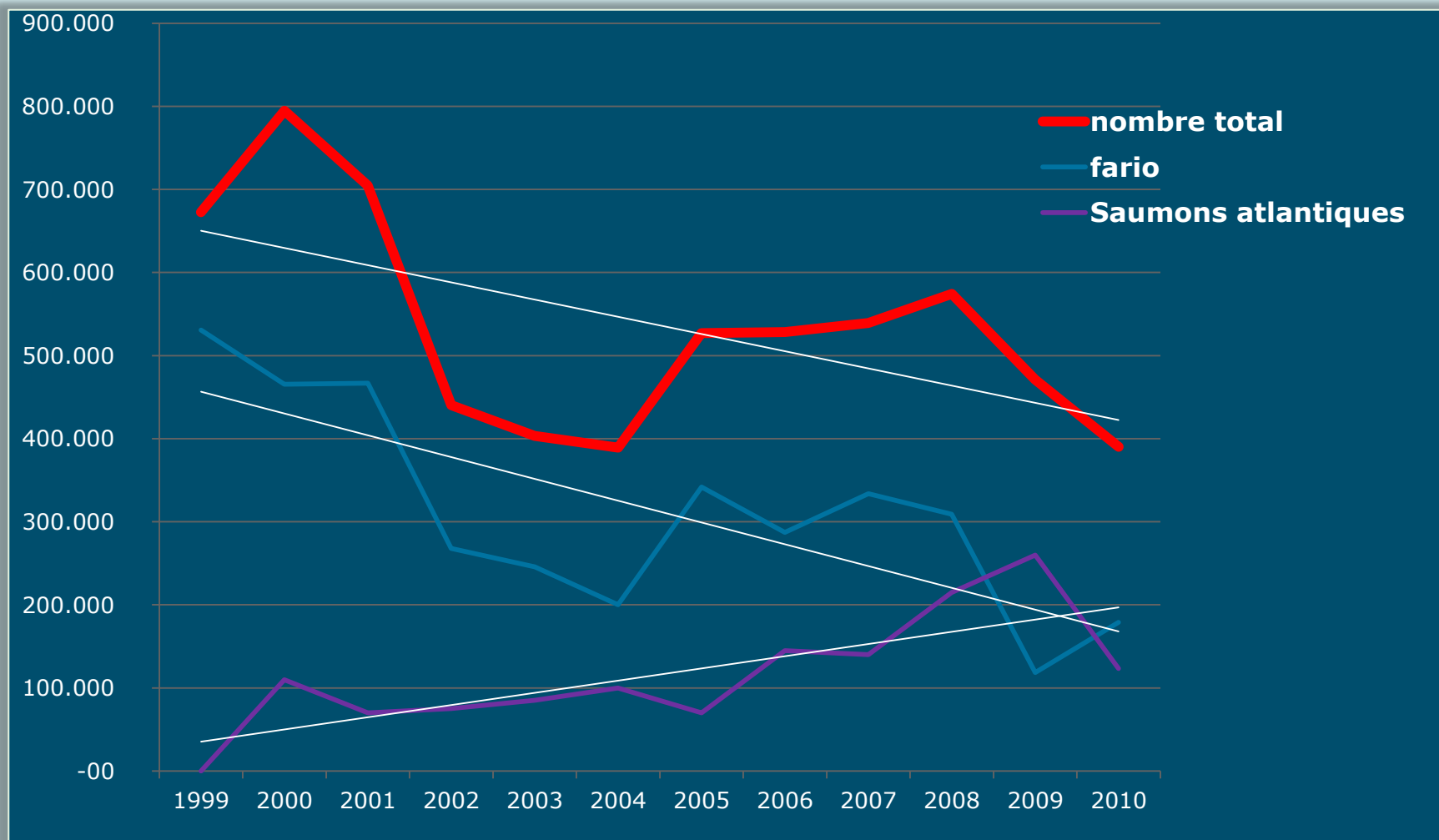
Fonds Piscicole + Fédérations de pêcheurs

Source: Service de la Pêche – DNF – DGARNE – SPW, août 2012

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Eel	0	4.000	3.304	0	0	10	0					0
Barbel	0	5.424	2.450	2.385	0	0	3.360					7.200
Pike	68.174	106.385	79.199	51.855	15.019	39.647	58.736	40.415	50.920	35.959	65.710	46.890
Chub: copvorn	0	177			0	0	0				10.000	8.234
coregonus	0				20.000	20.000	20.000					
Roach	370	0	0	251	0	0	712	0	50	1.027	1	306
gudgeon	0	60.590	32.699	21.432	27.109	14.508	10.071	22.325	0	2.050	1.572	
orf	0	800	0	0	0	0	0	500	2.333	0	0	500
Grayling	20.114	326		250	0	0	0		1.312	860	11.300	5.843
Perch	0	0	0	0	0	162	169	28.819	0	0	0	0
Pike perch	1.800	0	0		0	471	1.120	2.119	1.000	0	209	0
Atlantic salmon	0	110.000	70.000	75.000	85.000	100.000	70.000	145.000	140.000	215.000	260.000	123.289
Fario	530.839	465.419	466.640	267.823	245.728	200.150	341.886	287.238	333.701	308.958	118.399	178.931
Rainbow trout	0											
Vairon												
Minnows	51.395	41.360	47.869	19.705	10.295	14.092	21.000	2.000	10.000	10.520	3.931	14.100
total	672.692	794.576	704.661	440.201	403.191	389.324	527.103	528.416	539.366	574.382	471.126	390.293

Restocking of open water (in #)

sources: service de la Pêche –DNF-DGARNE- SPW, août 2012





Fishing licences in Wallonia

Nombre: de permis vendus (sources DNF)

	2006	2007	2008	2009	2010	2011	2012 > Aout compris
TOTAL	59.490	60.404	56.864	59.714	54.636	55.592	53.645

Value: Permis de pêche en Valeur € (sources DNF)

	2006	2007	2008	2009	2010	2011	2012 > Aout compris
TOTAL	1.059.178 €	1.077.418 €	1.050.341 €	1.109.550 €	1.039.767€	1.065.865€	857.090 €

DNF= Direction Nature et Forêts

« Fonds piscicole » « Fish Funds »: budget 2005-2010 in €

	2005	2010	Différence en % 2010/2005
Total fish funds	1.742.000	1.121.000	-35,7 %
Fishing licences €	+1.240.000	+1.050.000	-15,3 %
Others:	+502.000	+71.000	
General management	-55.238	-50.000	-9,5 %
Regional fishing service authority	-37.184	-	
River restoration	-412.557	-84.000	-79,6 %
Open water Restocking = 30 % of the budget	-560.418	-393.000	-29,9 %
pollutions	-19.498	-11.000	-43,6 %
Angling promotion + education	-236.741	-221.000	-6,6 %
Subvention to angling federations	-176.339	-172.000	-2,5 %
Subvention to « Angling house »	-231.821	-190.000	-18,0 %

- Angling ponds on the fish farm



Prices:

25 € per day; 4 kg trouts/ angler
15 € per 12 day; 2,5 kg



Trout fish farm: Eddible fish production



Fischzucht
Ourtal



High standards:

Truites d'Ardenne(s); Ardense forellen

- **Delhaize**  production: New Gabriel in Ligneville
- **Carrefour**  production: Gabriel SC + Mathonet in Malmédy

Minimum 4 weeks in the Ardenne waters

High standards:Organic trout farm

- One fish farm under conversion process: “La truite de Freux” → March 2013
- Organic in Europe: facts
 - *126 organic fish farms in 2008*
 - *± 50 000 tons organic in 2008.*
 - *Ireland first organic salmon producers– 8 000 tons en 2008.*
 - *In France: 29 fish farms converted to organic production in 2009.*

- **Bait fish:** *Phoxinus phoxinus*: Piscivair hatchery
Up to 1,5 million fish/Y



- **Sturgeons in Tihange (Nuclear Power station)**
Aqua bio / BQF



- **Sturgeons
in RAS: BQF**

Dottignies

(ex Vitafish >tilapias)

Royal Belgian Caviar



- **Ornamental fishes:** (cold or warm water)
→ almost no more production; only imports.
Belgian imports (fishes): **10 million €** (2007)
 - Lack of **hatcheries** for Kois, Gold fishes, Orf, ...

3 /Processing



Created in 1982 in Ligneville



Processors in the W.R.: 10 (small)

Companies	products	Nb of employee	Place
Fischzucht Ourtal SPRL	Fresh trouts, filets, smoked filets, import	6	Burg-Reuland
Maison Baltus (La)	Fresh trouts	2	Aubel
Etangs du Moulin SA	Fresh trouts, filets, smoked filets	1	Waimes
Mathonet-Gabriel SA	Fresh trouts, filets, smoked filets 300 T/Y, import	10	Malmedy
New Gabriel	Fresh trouts, filets 500 T/Y, import	8	Malmedy
Gabriel SC	Sea water fishes, fresh water fishes. Import	12	Malmedy
Le chêneau, Pisciculture d'Annevoie	Fresh trouts, filets, smoked filets	2	Godinne
Pisciculture Vanbelle	Fresh trouts, filets, smoked filets	2	Maredret
Cendron fishfarming	Escaveche	2	Forge-Philippe
Pisciculture de la Gernelle	Fresh trouts, filets	1	Nollevaux (Paliseul)
TOTAL employee		46	

4/ International Transport

- 10 trailer trucks
(5- 10 T / transport)
- 5 Import businesses



5/ Promotion of the farm products

- **APAQ-W: Agence Wallonne pour la Promotion d'une Agriculture de Qualité: support générique aux filières**
- **OPW: Office des produits Wallons support individualisé aux entreprises**
- **FEP (Fond Européen pour la pêche);
EVF (Europees Visserijfonds): NOT empowered**



6/ Trade unions: Two

- Pisciculteurs Artisans (PA. ASBL)
(regional)
- Union Professionnelle des pisciculteurs Professionnels Belges (UPPB)
(national)



- **STATE Fish farm : (the largest farm in RW)**

Service de la Pêche (DNF) Fish farm in Erezée



(DNF= Direction Nature et Forêt)



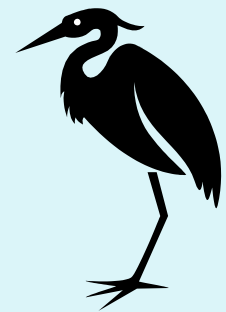
Erezée (DNF): Salmon (*Salmo salar*)

Production for restocking



Legal aspects ≠ with Flanders

- Environmental license class 1 > 30 T/y
- Natura 2000: up to 80 % of the rivers under protection
- Water Framework Directive (Directive cadre sur l'eau) → New industrial water discharge taxes
- Piscivorous birds: legal support
 - Yearly shouting License for limited # of birds
 - 385 €/ha of ponds/y
- ...

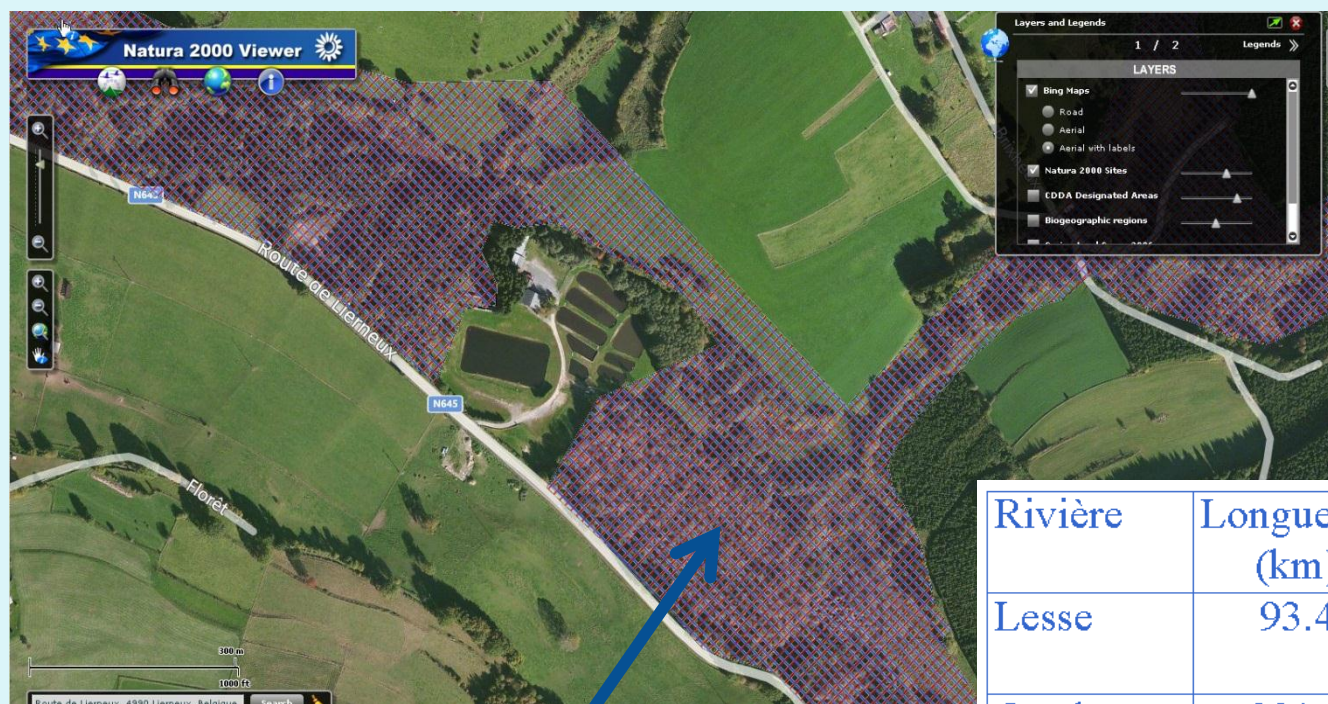


Regional environmental license

	CLASSE 1	CLASSE 2	CLASSE 3
Conditions de classement	Production : + de	Production : - de	Production : - de
-Zone d'habitat.	15 T/an	15 T/an et $\geq$ à 250 kg/ an	250 kg/ an
-Autres zones	30 T/an	30 T/an et $\geq$ 500 kg/an	500 kg/an Étangs...
Documents à introduire	• Demande de permis unique • Formulaire relatif aux prises d'eau • Etude d'incidence environnementale	• Demande de permis unique • Formulaire relatif aux prises d'eau	• Formulaire de déclaration des établissements de classe 3 • Formulaire relatif aux prises d'eau
Enquête publique obligatoire	oui	oui	non
Droits de dossiers	500 €	250 €	Gratuits
Validité maximale environnementale	20 ans	20 ans	10 ans
Organismes intervenants	Commune, DPA, DGA, DNF, DE.	Commune, DPA, DGA, DNF, DE.	Commune, DPA, DE.

Natura 2000 issue

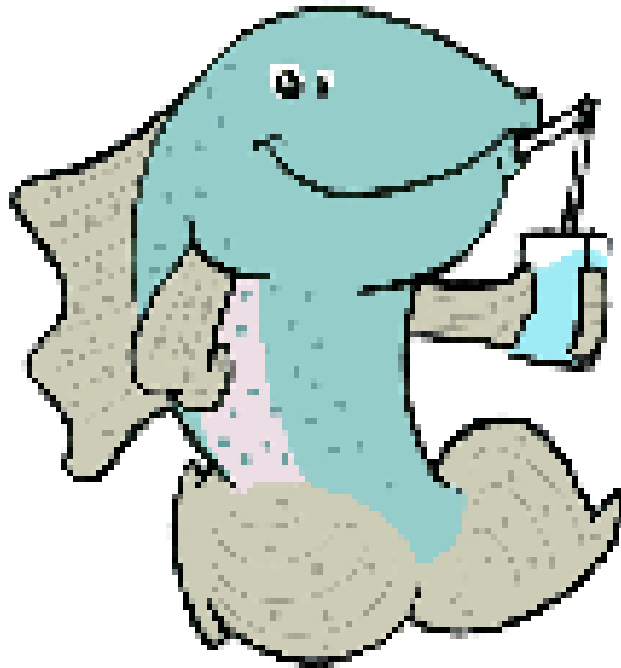
- Most of the existing fish farms have been put out the Natura 2000 program, but not the outflow...



Natura 2000 limits

Rivière	Longueur (km)	Natura 2000 (km)	Natura 2000 (%)
Lesse	93.4	70.6	75
Ourthe	221.0	161.4	73
Semois	184.8	148.2	80

Thank you for your attention



Fillères Agricoles Wallonnes