

Table E2.1. European eel recruitment time series used by the WGEEL as indices

code	name	comments
AdTC	Adour Estuary (catch) commercial catch	only marine fishermen since 2000
AdCP	Adour Estuary (CPUE) commercial CPUE	
Albu	Albufera de Valencia commercial catch	The Albufera in C. Valenciana. In the 1949-2000 period data were collected from fishermen guilds corresponding to two fishing points (Pujol and Perellonet). From 2001 on, the administration of C. Valenciana also compiles data from other fishing points in
AICP	Albufera de Valencia commercial CPUE	This series has been updated quite a lot recently because different fishing point have been considered during different years. Now data correspond to Pujol, Perelló and Perellonet, since those are the point were information since 1949 exists.
Ebro	Ebro delta lagoons	The Delta del Ebro lagoons in Catalonia. Data are obtained from the fish markets in the area. Since 1998, the administration from Catalonia compiles data for the fish markets corresponding to the Ebro river mouth, obtaining total catch. There might have been change in fishing practise and effort.
Ems	Ems Herbrum commercial catch	Herbrum is a weir (safety for the downstream area, improved navigation for ships upstream) equipped with a salmon ladder, to which a small eel ladder has been added. That was built in the 1920s, probably by the government. The island between the weir and the sluices (shipping) was/is owned by the German inland fisheries organisation, or at least the house on the island is. □ Both the salmon trap and eel ladder lead the fish upward, but at the final end at the top of the weir, a
GiTC	Gironde Estuary (catch) commercial catch	
GiCP	Gironde Estuary (CPUE) commercial CPUE	
GiSc	Gironde scientific estimate	The Gironde survey consists in a monthly sampling of 24 stations (surface + deep) distributed along 4 transects. This monitoring uses an estuarine research vessel and aims at evaluating the abundance variations of the juveniles of fish and crustacean and the adults of small species.
Yser	Ijzer Nieuwpoort scientific estimate	This series consist of the total year catch by dipnet fishery at Nieuwpoort. See tables and Belpaire (2002, 2006). Belpaire, C. (2002) Monitoring of glass eel recruitment in Belgium. In: Dekker W. (Ed.) Monitoring of glass eel recruitment. Netherlands Institute of Fisheries research, report C007/02-WD, Volume 2B, pp. 169-180 Belpaire, C., 2006. Report on the eel stock and fishery in Belgium 2005. In FAO European Inland Fisheries Advisory Commission; International Council for the Exploration of the Sea. Report of the 2006 session of the Joint EIFAC/ICES Working Group on Eels. Rome, 23–27 January 2006. EIFAC Occasional Paper. No. 38, ICES CM 2006/ACFM:16. Rome, FAO/Copenhagen, ICES. 2006. 352p., 217-241.
Imsa	Imsa Near Sandnes trapping all	The stage is not really glass eel but elver. There has been no change over time in the Imsa time series.
IYFS1	IYFS scientific estimate	Changed method for IYFS2

YFS2	IYFS2 scientific estimate	Catch of glass eels by a modified Methot–Isaacs–Kidd Midwater trawl (MIKT) in the Skagerrak-Kattegat. Data expressed as total numbers per hour of haul. No sampling in 2011 due to technical problems. The catch was low in recent years, and zero or 1 glass eel might not be very precise.
Katw	Katwijk scientific estimate	
Lauw	Lauwersoog scientific estimate	Average number of glass eel per lift in the period April May. Check new data from 2011 are no longer an index. Some years have been dropped off as part of a screening process by Stein (5 or less hauls)
Loi	Loire Estuary commercial catch	Based on total catch of glass eel from the fishery. This series is considered of a dubious quality. Since the regulation was implemented, only the EMU of data is available. This series is discontinued.
MiPo	Minho portugese part commercial catch	Glass eel fishery in the River Minho has been permitted between November and April for many years, but in the last fishing seasons, mostly due to the eel population decline and the high fishing pressure, an agreement between the Portuguese and Spanish authorities, has been gradually reducing the fishing period. In the fishing season 2006/2007, fishery was permitted between November and the last New Moon of March, and gradually reduced until last season when it occurred between the 1st November and the 1st February.
MiSp	Minho spanish part commercial catch	There has been change over time
Nalo	Nalon Estuary commercial catch	Until the 70's only land fishing existed, then fishermen started to fish in boats, and the catches increased notably. This series comprises the San Juan de La Arena Fish Market sellings but those are in fact only a part of the Nalon river true landings (Nalon Landings series available from 1995 is somewhat higher). Beware data year (2008-2009) labeled 2008 in the report
RhDO	Rhine DenOever scientific estimate	Average number of glass eel per lift in the period April May. 5 lift per night so the most important sampling effort in the Netherland, and also the longest series available.
Rhlj	Rhine Ijmuiden scientific estimate	Average number of glass eel per lift in the period April May.
Ring	Ringhals scientific survey	Recruitment of glass eel (truly unpigmented) to the Swedish west coast is monitored at the intake of cooling water to the nuclear power plant at Ringhals in the Kattegat. The time of arrival of the glass eels to the sampling site varies between years, probably as a consequence of hydrographical conditions, but the peak in abundance normally occurred in late March to early April. Abundance has decreased by 96% if the recent three years are compared to the peak in 1981-1983. The sampling at Ringhals is performed twice weekly in February-April, using a modified Isaacs-Kidd Midwater trawl (IKMT). The trawl is fixed in the current of incoming cooling water, fishing passively during entire nights. Sampling is depending on the operation of the power plant and changes in the strength of the current may occur so data are corrected for variations in water flow From 2012 the series has been corrected and now only concerns glass eel collected during March and April (weeks 9-18). Probably the best serie on glass eel recruitment on the swedish west coast (from the number of samples), but there might be local change due to the operation of the industry.
Maig	River Maigne	glass eel trapping (kg), there might be some small number of yellow juveniles. There was an improvement to the trap in 2011. The trap is frequently flooded,; The Maigne trap was only operated on a very limited basis in 2014, approximately 1 hour per day.
SeEA	Severn EA commercial catch	Time series of catch declaration from the fishermen □ 2010 Miran comment : Comparison of the two data sets did suggest to us that there was considerable underreporting - which hopefully we have dealt with.

		Estimates of glass eel exported from the UK minus any glass eel imported into the UK (and then exported) - so hopefully giving us an estimate of the (true) catch in the UK (HMRC data). The HMRC data was put together by Brian Knights and then taken on by Alan - however Alan had a lot of difficulty interpreting the data and that is why the time series stops in 2006.
SeHM	Severn HMRC commercial catch	2011 : The series resumes in 2010 and is based on consignment notes. No data from 2007-2009.
SevN	Sèvres Niortaise Estuary commercial CPUE	Last update 2008 , series with holes, no data since
Stel	Stellendam scientific estimate	Note that at Katwijk there are typically only small sample sizes so the values are relatively uncertain.
Tibe	Tiber Fiumara Grande commercial catch	this series has now stopped
Vida	Vidaa Højer sluice commercial catch	
Vil	Vilaine Arzal trapping all	Fishery corrected. Data from 2009 onward calculated from an assumption about level of Vilaine catch in total Britany. This series is based on total catch and this is almost the total recruitment coming in the Vilaine, this series is one which was the closest to the general trend (2012) as it is not influenced by local environmental conditions.
Bann	Bann Coleraine trapping partial	The LNFCS catch young yellow eel (elvers) fished below a river-spanning sluice gate, which creates a barrier to upstream juvenile eel migration on the River Bann. The catch used to be made using drag nets with an area of 0.94 m2, but this is almost zero for the last five year (2008-2013). Another part of the catch is made with a glass eel collector located just below an impassable step on the left bank of the river. And finally a stationary trap located on the other bank of the river is used. These, and elvers trapped at the same location are transported upstream to be stocked into the Lough. These catches provide a time-series of 'natural' recruitment into the Lough
Erne	Erne Ballyshannon trapping all	total trapping in kg glass eel + yellow Full trapping of elvers on the Erne commenced in 1980. Some discrepancies in the time series came to light in 2009 but have been corrected. The Erne elver dataset has now been double checked and the presented data has been agreed by DCAL . No changes in the series since 1980
Fre	Frémur	The river Frémur is located in the channel in Brittany. Glass eel and yellow eel total recruitment series, another trap downstream in this river with slightly different results, but some glass eel are known to be able to pass that dam.
Klit	Klitmoeller A	Coordinates 57o 02'32" N 8o 29'25" E Densities (eel/m2) of pigmented glas eel and yellow eel (elvers) from electrofishing shallow small stream! The data represent in general 3 electrofishing surveys per season. Some years only one or two electrofishing surveys have been possible. The average density (eel/m2) from three electro surveys from may to august. The max density ususally in June/july.

Nors	Nors A	Coordinates 57° 02'55" N 8° 30'36" E Densities (eel/m ²) of pigmented glass eel and yellow eel (elvers) from electrofishing shallow small stream! The data represent in general 3 electrofishing surveys per season. Some years only one or two electrofishing surveys have been possible. The average density (eel/m ²) from three electro surveys from may to august. The max density usually in June/July.
Feal	River Feale	Glass eel trapping (kg), there might be some small number of yellow juveniles, this series is consistent over time
Inag	River Inagh	glass eel trapping (kg), there might be some small number of yellow juveniles. There was an improvement to the trap in 2011. This might still not have changed the series.
ShaA	Shannon Ardnacrusha trapping all	Consistent time series, total trapping glass eel + yellow in kg
Sle	Slette A	coordinates 57° 09'17" N 9° 21'20" E Densities (eel/m ²) of pigmented glass eel and yellow eel (elvers) from electrofishing shallow small stream! The data represent in general 3 electrofishing surveys per season. Some years only one or two electrofishing surveys have been possible. The average density (eel/m ²) from three electro surveys from may to august. The max density usually in June/July.
Visk	Viskan Sluices trapping all	In River Viskan situated on the West Coast most eels are young-of-the-year recruits, i.e. originates from glass eels arriving at the coast in the same year. Data comes from 4 eel passes situated at an overflow dam that regulates R Viskan, at the the very shoreline to the sea. The sluices are not of any relevance for this series.
Bres	Bresle	French station located in a calcareous river in the channel . Yellow eel survey at the trapping station, changes in 2003 and 2012 has probably caused a change in the series.
Dala	Dalälven trapping all	370 mm average size
Gota	Göta Älv trapping all	operated since 1900, this series is the longest available to the working group Missing years 1995, 1998 to 2001, 2010,2011 (fish pass rebuilt in 2010 2011). The Göta Älv trapping all station is located in the swedish west coast.
Gude	Guden Å Tange trapping all	The Tange hydropower stations is located in river Guden Å . The river flows to the Kattegat on the east coast of Jutland. No data in year 2012
Hart	Harte trapping all	At Harte Hydro power station the condition for monitoring recruitment has changed. As part of a river restoration project in River Kolding Å, the water supply to Harte Hydropower station has been reduced by 60 % since spring/summer 2008. The effect of lower water supply to the the trapping site is a marked decrease in recruitment at Harte hydropower station from 2008. This is the second time a major change of eel monitoring in River Kolding Å has taken place since monitoring started in 1967. The first change was in 1991, a bypass stream was made at the Stubdrup Weir allowing eels to bypass and the trapping facility was terminated in 1990. This is also reflected in the re-cruitment data
Kavl	Kävlingeån trapping all	320 mm average size, Baltic entrance
Laga	Lagan trapping all	2011 data only provisional. always a high percentage of YOY elvers from this site. Baltic

Meus	Meuse Lixhe dam trapping partial	On the Meuse, the University of Liège is monitoring the amount of ascending young eels in a fish-pass. From 1992 to 2010 upstream migrating eels were collected in a trap (0.5 cm mesh size) installed at the top of a small pool-type fish-pass at the Visé-Lixhe dam (built in 1980 for navigation purposes and hydropower generation; height: 8.2 m; not equipped with a ship-lock) on the international River Meuse near the Dutch-Belgium border (290 km from the North Sea; width: 200 m; mean annual discharge: 238 m ³ s ⁻¹ ; summer water temperature 21-26°C). The trap in the fish-pass is checked continuously (three times a week) over the migration period from March to September each year, except in 1994.
Morr	Mörrumsån trapping all	A pass has been built which might have led to the escapement of some eels.
Mota	Motala Ström trapping all	Northeast series available in the Baltic
Ronn	Rönne Å trapping all	Baltic entrance
ShaP	Shannon Parteen trapping partial	Juvenile yellow eel catch (kg). A second trap on the opposite bank of the river was installed in 2012 but the data were not included this in the time series. The catch of the second trap is reported as comment.

area	Index Series	country	emu_code	river	location	samplingtype	unit
Atlantic Ocean	Elsewhere	France	FR_Adou	Adour	Estuary (catch)	commercial catch	t
Atlantic Ocean	Elsewhere	France	FR_Adou	Adour	Estuary (CPUE)	commercial CPUE	cpue
Mediterranean Sea	Elsewhere	Spain	ES_Vale	Albufera lagoon	Albufera de Valencia	commercial catch	Kg
Mediterranean Sea	Elsewhere	Spain	ES_Vale	Albufera lagoon		commercial CPUE	cpue
Mediterranean Sea	Elsewhere	Spain	ES_Cata	Ebro delta lagoons	river delta from the Ebro	commercial catch	Kg
North sea	North sea	Germany	NL_Neth	Ems	Herbrum	commercial catch	Kg
Atlantic Ocean	Elsewhere	France	FR_Garo	Gironde	Estuary (catch)	commercial catch	t
Atlantic Ocean	Elsewhere	France	FR_Garo	Gironde	Estuary (CPUE)	commercial CPUE	cpue
Atlantic Ocean	Elsewhere	France	FR_Garo	Gironde	Scientific Survey	scientific estimate	Index
North sea	North sea	Belgium	BE_Sche	IJzer	Nieuwpoort	scientific estimate	Kg
North sea	North sea	Norway	NO_Norw	Imsa	Near Sandnes	trapping all	Number
North sea	North sea	Sweden	SE_West		IYFS/IBTS (old data)	scientific estimate	Index

North sea	North sea	Sweden	SE_West		IYFS/IBTS (new data)	scientific estimate	Index
North sea	North sea	Netherlands	NL_Neth		Katwijk	scientific estimate	Index
North sea	North sea	Netherlands	NL_Neth		Lauwersoog	scientific estimate	nb/h
Atlantic Ocean	Elsewhere	France	FR_Loir	Loire	Estuary	commercial catch	Kg
Atlantic Ocean	Elsewhere	Portugal	PT_Port	Minho	portugese part	commercial catch	Kg
Atlantic Ocean	Elsewhere	Spain	ES_Gali	Minho	spanish part	commercial catch	Kg
Atlantic Ocean	Elsewhere	Spain	ES_Astu	Nalon	Estuary	commercial catch	Kg
North sea	North sea	Netherlands	NL_Neth	Rhine	DenOever	scientific estimate	Index
North sea	North sea	Netherlands	NL_Neth	Rhine	Ijmuiden	scientific estimate	Index
North sea	North sea	Sweden	SE_West	Kattegat-Skagerrak	Ringhals	scientific estimate	Index
Atlantic Ocean	Elsewhere	Ireland	IE_Shan	Maigue		trapping all	Kg
British Isle	Elsewhere	UK	GB_Seve	Severn	EA	commercial catch	t

British Isle	Elsewhere	UK	GB_Seve	Severn	HMRC	commercial catch	Kg
Atlantic Ocean	Elsewhere	France	FR_Loir	Sèvres Niortaise	Estuary	commercial CPUE	cpue
North sea	North sea	Netherlands	NL_Neth		Stellendam	scientific estimate	Index
Mediterranean Sea	Elsewhere	Italy	IT_Lazi	Tiber	Fiumara Grande	commercial catch	t
North sea	North sea	Denmark	DK_Inla	Vidaa	Højer sluice	commercial catch	Kg
Atlantic Ocean	Elsewhere	France	FR_Bret	Vilaine	Arzal	trapping all	t
British Isle	Elsewhere	Northern Ireland	GB_NorE	Bann	Coleraine	trapping partial	Kg
British Isle	Elsewhere	Ireland	IE_NorW	Erne	Ballyshannon	trapping all	Kg
North sea	North sea	France	FR_Bret	Frémur	Frémur river, Bois Joli lift	trapping all	Number
North sea	North sea	Denmark	DK_Inla	Klitmoeller A		scientific estimate	eel/m2

North sea	North sea	Denmark	DK_Inla	Nors A		scientific estimate	eel/m2
Atlantic Ocean	Elsewhere	Ireland	IE_Shan	Feale		trapping all	Kg
Atlantic Ocean	Elsewhere	Ireland	IE_Shan	Inagh		trapping all	Kg
British Isle	Elsewhere	Ireland	IE_Shan	Shannon	Ardnacrusha	trapping all	Kg
North sea	North sea	Denmark	DK_Inla	Slette A		scientific estimate	eel/m2
North sea	North sea	Sweden	SE_West	Viskan	Sluices	trapping all	Kg
Atlantic Ocean	Elsewhere	France	FR_Sein	Bresle	Bresle river 3 km from the sea	trapping all	Number
Baltic	North sea	Sweden	SE_East	Dalälven	?	trapping all	Kg
North sea	North sea	Sweden	SE_Inla	Göta Älv		trapping all	Kg
North sea	North sea	Denmark	DK_Inla	Guden Å	Tange	trapping all	Kg
Baltic	North sea	Denmark	DK_Inla	Harte	?	trapping all	Kg
Baltic	North sea	Sweden	SE_Inla	Kävlingeån	?	trapping all	Kg
North sea	North sea	Sweden	SE_Inla	Lagan		trapping all	Kg

North sea	North sea	Belgium	BE_Meus	Meuse	Lixhe dam	trapping partial	Kg
Baltic	North sea	Sweden	SE_Inla	Mörrumsån		trapping all	Kg
Baltic	North sea	Sweden	SE_Inla	Motala Ström		trapping all	Kg
North sea	North sea	Sweden	SE_Inla	Rönne Å		trapping all	Kg
British Isle	Elsewhere	Ireland	IE_Shan	Shannon	Parteen	trapping partial	Kg

life stage	Active	first year	last year	duration	missing	Possible changes in the series disrupting the trend
glass eel	yes	1986	2008	23	0	1
glass eel	yes	1928	2008	81	40	0
glass eel	no	1949	2014	66	5	1
glass eel	no	1982	2014	33	5	0
glass eel	no	1966	2014	49	3	1
glass eel	yes	1946	2001	56	0	1
glass eel	yes	1923	2008	86	28	1
glass eel	yes	1961	2008	48	1	0
glass eel	no	1992	2014	23	1	0
glass eel	no	1964	2014	51	1	1
glass eel	no	1975	2014	40	1	0
glass eel	yes	1975	1989	15	0	0

glass eel	no	1991	2014	24	0	0
glass eel	no	1977	2014	38	5	0
glass eel	no	1976	2014	39	4	0
glass eel	yes	1924	2008	85	6	1
glass eel	no	1975	2013	39	0	1
glass eel	no	1975	2014	40	0	1
glass eel	no	1953	2014	62	0	1
glass eel	no	1938	2014	77	1	0
glass eel	no	1969	2014	46	4	0
glass eel	no	1981	2014	34	0	0
glass eel	no	1994	2014	21	4	1
glass eel	no	1972	2014	43	2	1

glass eel	no	1979	2014	36	4	1
glass eel	yes	1962	2008	47	25	0
glass eel	no	1971	2014	44	1	0
glass eel	yes	1975	2006	32	0	1
glass eel	yes	1971	1990	20	0	1
glass eel	yes	1971	2011	41	0	0
glass eel + yellow eel	no	1960	2014	55	0	0
glass eel + yellow eel	no	1959	2014	56	2	0
glass eel + yellow eel	no	1997	2014	18	0	0
glass eel + yellow eel	no	2008	2014	7	0	1

glass eel + yellow eel	no	2008	2014	7	0	1
glass eel + yellow eel	no	1985	2014	30	14	0
glass eel + yellow eel	no	1996	2014	19	4	0
glass eel + yellow eel	no	1977	2014	38	0	0
glass eel + yellow eel	no	2008	2014	7	0	1
glass eel + yellow eel	no	1972	2014	43	0	0
yellow eel	no	1994	2013	20	0	1
yellow eel	no	1951	2014	64	3	0
yellow eel	no	1900	2014	115	12	0
yellow eel	no	1980	2013	34	1	0
yellow eel	no	1967	2013	47	1	1
yellow eel	no	1992	2014	23	0	0
yellow eel	no	1925	2014	90	0	0

yellow eel	no	1992	2014	23	3	0
yellow eel	no	1960	2014	55	0	1
yellow eel	no	1942	2014	73	0	0
yellow eel	no	1946	2014	69	9	0
yellow eel	no	1985	2014	30	0	0