

Data Format for Eel (Japan)

Data on Catch of Japanese Eel

Item	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Catch of glass eel	tons	24.7	9.2	9.5	9.0	5.2	17.4	15.3	13.6	15.5	8.8(*1)
Fishing effort on glass eel	number of licences	6,810	6,723	6,619	6,669	6,781	6,617	4,698	4,398	4,790	5,874(*2)
Item	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Catch of wild adult eel	tons	263	245	229	165	135	112	70	71	-	-

Input of glass eel into aquaculture ponds

Species	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(*3)
japonica	tons	28.9	19.9	21.8	15.9	12.6	27.1	18.3	19.7	19.6	14.0
Other eel	tons	0.1	0.03	0.01	0.4	1.3	3.5	0.0	0.2	0.1	0.03
Total	tons	29.0	19.9	21.8	16.3	13.9	30.6	18.3	19.8	19.7	14.0

Other data on aquaculture

Item	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Scale of aquaculture industry	number of aquaculture operators	-	-	-	-	384	-	515	514	491	496

Notes:

1. The statistic period of the data related to glass eel (catch of glass eel, fishing effort of glass eel and input of glass eel into aquaculture ponds) should be the fishing season of glass eel ("20XX-XX+1" means the input season which starts from 1st November, 20XX to 31st October, 20XX+1.), while that for other data should be the calendar year.
 2. When data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
 3. Unit for catch of glass eel, catch of adult eel, input of glass eel into aquaculture ponds and aquaculture production should be weight (kilograms or metric tons) as far as possible.
 4. Unit for fishing effort on glass eel and scale of aquaculture industry can be chosen by each Economy, taking into account availability of information. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels. Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.
 5. When there is no available statistics for catch of wild adult eel, research activities which could indicate the trend of the wild adult eel stock should be considered as an alternative.
 6. The data of input of glass eel into aquaculture ponds and aquaculture production should be entered by species (japonica, rostrata, bicolor, etc) as far as possible. When it is not possible to provide species-specific data, enter the data in the box of "Total".
- *1 The data of catch of glass eel 2017-2018 season is from 1st November to 30th April.
 *2 The data of number of licences 2017-2018 season is approximate numeric value.
 *3 The data of input of glass eel into aquaculture ponds 2017-2018 season is from 1st November to 30th April.

Export of adult eel and eel products

Species	Type/Size	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018(*1)
japonica	live eel	tons	71.2	27.7	36.5	10.4	2.2	38.8	20.7	25.8	33.1	0.0
	broiled eel	tons	-	-	-	21.2	30.0	30.9	38.9	45.2	66.6	6.8
Total		tons	71.2	27.7	36.5	31.6	32.1	69.6	59.6	71.0	99.7	6.8

Export of glass/juvenile eel

Species	Type/Size	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
japonica	juvenile eel	tons	17.8	4.6	9.6	5.7	1.6	6.7	1.3	0.4	0.9	-
	juvenile eel	number of fish	2,891,536	1,175,730	0	133,668	0	3,573,540	526,977	1,634,988	2,447,269	-

Import of adult eel and eel products

Species	Type/Size	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018(*2)
	live eel	tons	12,085.5	14,840.8	9,657.6	4,677.6	4,789.2	4,781.1	7,066.7	7,276.1	6,815.7	2,165.8
	broiled eel	tons	34,100.3	38,230.8	24,403.2	14,983.3	13,468.5	15,432.7	24,089.4	24,193.2	25,477.8	5,507.4
Total		tons	46,185.8	53,071.6	34,060.8	19,660.9	18,257.7	20,213.7	31,156.1	31,469.3	32,293.5	7,673.2

Import of glass/juvenile eel

Species	Type/Size	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18(*3)
	glass eel	tons	5.6	11.1	13.1	9.2	10.7	12.5	3.6	7.6	4.8	5.3

Notes:

1. The statistical period of the data of export and import of glass/juvenile eel should be the fishing season of glass eel, while that for other data should be the calendar year.
 2. When data is not available, "--" should be entered. When data is identified as zero, "0" should be entered.
 3. Unit should be weight (kilograms or metric tons) as far as possible.
 4. Examples of type/size of export and import of adult eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.
 5. Examples of type/size of export and import of glass/juvenile eel may include glass eel, elver, eel fry or juvenile eel. The classification of concrete size (e.g. less than 15cm, 501-5000pcs/kg, etc) can also be entered.
 6. The data should be entered by species (japonica, rostrata, bicolor, etc) as far as possible. When it is not possible to provide species-specific data, enter the data in the box of "Total".
- *1 The data of export of adult eel and eel products 2018 is from 1st January to 31st Mar.
 *2 The data of import of adult eel and eel products 2018 is from 1st January to 31st Mar.
 *3 The data of import of glass/juvenile eel 2017-2018 season is from 1st November to 31st Mar.

Data Sources and/or Methods to collect or estimate the data

Item	Data Sources and/or Methods to collect or estimate the data
Catch of glass eel	The data is estimated in every fishing period (from Decembrt of previous year to April) by deducting the amount of import of glass eels (calculated from the Trade Statistics every fishing period) from the amount of input of glass eels into aquaculture ponds which is compiled by national organizations of eel-farming operators as mentioned above.
Fishing effort on glass eel	The index of fishing effort on glass eels is the total number of licenses submitted by each Prefecture which has the mandate to issue licenses.
Catch of adult eel	The data is from "Annual Statistics on Fisheries and Aquaculture Production" compiled and published by the Ministry of Agriculture, Forestry and Fisheries. The data contained in this statistics are derived from questionnaires on catch and aquaculture production sent to fisheries cooperatives covering main rivers and lakes as well as aquaculture operators all around the country.
Input of glass eel into aquaculture ponds	The data of Japanese ell (<i>Anguilla japonica</i>) is compiled by national organizations of eel-farming operators based on the reports from its members on input. The data of <i>Anguilla</i> except Japanese ell is based on the reports from eel-farming operators. The data are collected every fishing period (from November to next October).
Scale of aquaculture industry	The index of scale of aquaculture industry is the number of aquaculture operators. The data for 2013 is from "Census of Fisheries" published by the Ministry of Agriculture, Forestry and Fisheries every five years. The data for 2015-2018 is the total number of eel-farming operators who are granted licenses issued by the Ministry of Agriculture, Forestry and Fisheries under the licensing system in accordance with the Inland Water Fishery Promotion Act, which entered into force in June 2015.
Export of adult eel and eel product	The data is from "Trade Statistics" compiled and published by the Ministry of finance. The Statistic codes are 03.01.92.000 (live fish - Eels (<i>Anguilla</i> spp.)) and 1604.17.000 (prepared or preserved fish, caviar and caviar substitutes prepared from fish eggs - eels). The amount of broiled eel is calculated as whole body of fish, dividing the amount of products by 0.6.
Export of juvenile eel	The data is from the reports submitted by exporters on either number or weight of juvenile eels actually exported.
Import of adult eel and eel product	The data is from "Trade Statistics" compiled and published by the Ministry of finance. The Statistic codes are 03.01.92.200 (live fish - Eels (<i>Anguilla</i> spp.) - other) and 1604.17.000 (prepared or preserved fish, caviar and caviar substitutes prepared from fish eggs - eels). The amount of broiled eel is calculated as whole body of fish, dividing the amount of products by 0.6.
Import of juvenile eel	The data is from "Trade Statistics" compiled and published by the Ministry of finance. The Statistic code is 03.01.92.100 (live fish - Eels (<i>Anguilla</i> spp.) - fry for fish culture).

Data Format for Eel (Korea)

Data on Catch of Japanese Eel

Item	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18.4
Catch of glass eel	tons	17.1	2.4	2.5	1.5	1.0	5.5	4.7	1.8	2.7	0.9
Fishing effort on glass eel	-	-	-	-	-	-	-	-	-	-	-
Item	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018.3
Catch of wild adult eel	tons	145	119	72	106	69	85	80	68	48	1

Input of glass eel into aquaculture ponds

Species	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18.4
Anguilla japonica		22.0	10.6	9.5	3.6	3.0	13.9	7.4	9.3	10.6	4.6
Other eel		1.5	1.5	1.6	5.9	13.2	2.9	5.1	3.7	0.6	3.3
Total	tons	23.5	12.1	11.1	9.5	16.2	16.8	12.5	13.0	11.2	7.9

Other data on aquaculture

Item	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Scale of aquaculture industry	number of aquaculture operators	508	521	523	524	532	536	564	542	555	

Notes:

1. The statistic period of the data related to glass eel (catch of glass eel, fishing effort of glass eel and input of glass eel into aquaculture ponds) should be the fishing season of glass eel ("20XX-XX+1" means the input season which starts from 1st November, 20XX to 31st October, 20XX+1.), while that for other data should be the calendar year.
2. When data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
3. Unit for catch of glass eel, catch of adult eel, input of glass eel into aquaculture ponds and aquaculture production should be weight (kilograms or metric tons) as far as possible.
4. Unit for fishing effort on glass eel and scale of aquaculture industry can be chosen by each Economy, taking into account availability of information. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels. Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.
5. When there is no available statistics for catch of wild adult eel, research activities which could indicate the trend of the wild adult eel stock should be considered as an alternative.
6. The data of input of glass eel into aquaculture ponds and aquaculture production should be entered by species (japonica, rostrata, bicolor, etc) as far as possible. When it is not possible to provide species-specific data, enter the data in the box of "Total".

Export of adult eel and eel products

Species	Type/Size	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018.4
Anguilla sp	Total	tons	28.8	0.5	67.6	91.2	9.6	0.4	2.9	5.4	47.7	3.1
	live		4.5	0.2	28.6	79.9	2.3	0.1	0.4	0.0	19.4	2.5
	freeze		24.1	0.1	39.0	11.1	0.0	0.0	0.1	2.1	23.8	0.0
	other		0.2	0.2	0.0	0.1	7.3	0.3	2.4	3.3	4.5	0.6

Export of glass/juvenile eel

Species	Type/Size	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18.4
Anguilla sp	live/grass eel	tons	0.3	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

Import of adult eel and eel products

Species	Type/Size	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018.4
Anguilla sp	Total	tons	287.9	3,235.4	666.9	234.0	946.9	1,466.8	1,009.2	988.4	1,366.6	255.2
	Live		148.8	3,026.1	481.8	137.7	837.0	1,358.8	799.2	615.9	740.6	0.5
	freeze		5.3	1.2	22.5	26.9	43.2	38.3	26.1	63.7	42.1	25.5
	cold storage		0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
	broiled		133.8	208.1	162.6	69.2	66.7	69.6	183.9	308.8	583.9	229.2

Import of glass/juvenile eel

Species	Type/Size	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18.4
Anguilla sp	live/grass eel	tons	6.9	10.2	8.7	9.0	15.2	10.3	7.8	11.1	8.5	7.0

Notes:

1. The statistical period of the data of export and import of glass/juvenile eel should be the fishing season of glass eel ("20XX-XX+1" means the input season which starts from 1st Nonemver, 20XX to 31st October, 20XX+1.), while that for other data should be the calendar year.

1. The statistical period of the data of export and import of glass/juvenile eel should be the fishing season of glass eel, while that for other data should be the calendar year.

2. When data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

3. Unit should be weight (kilograms or metric tons) as far as possible.

4. Examples of type/size of export and import of adult eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.

5. Examples of type/size of export and import of glass/juvenile eel may include glass eel, elver, eel fry or juvenile eel. The classification of concrete size (e.g. less than 15cm, 501-5000pcs/kg, etc) can also be entered.

6. The data should be entered by species (japonica, rostrata, bicolor, etc) as far as possible. When it is not possible to provide species-specific data, enter the data in the box of "Total".

Data Sources and/or Methods to collect or estimate the data

Item	Data Sources and/or Methods to collect or estimate the data
Catch of glass eel	The data is from Fresh Water Eel Culture Fisheries Cooperative.
Fishing effort on glass eel	-
Catch of adult eel	The data is from "Data of Fisheries information Service" compiled and published by Ministry of Oceans and Fisheries.
Input of glass eel into aquaculture ponds	The data is from Fresh Water Eel Culture Fisheries Cooperative.
Scale of aquaculture industry	The data is from Fresh Water Eel Culture Fisheries Cooperative.
Export of adult eel and eel product	The data is from "Data of Trade Statistics" compiled and published by Korea customs service.
Export of juvenile eel	The data is from "Data of Trade Statistics" compiled and published by Korea customs service.
Import of adult eel and eel product	The data is from "Data of Trade Statistics" compiled and published by Korea customs service.
Import of juvenile eel	The data is from "Data of Trade Statistics" compiled and published by Korea customs service.

Data Format for Eel (Chinese Taipei)

Data on Catch of Japanese Eel

Item	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Catch of glass eel	tons	1.80	0.74	2.04	1.91	0.96	8.25	1.1	3.06	4.5	1.1
Fishing effort on glass eel	number of fishing vessels	-	-	-	-	213	232	250	245	251	272
Catch of wild adult eel		-	-	-	-	-	-	-	-		

Input of glass eel into aquaculture ponds

Species	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<i>Anguilla japonica</i>	tons	25.0	13.1	3.8	2.2	1.5	12.5	2.8	3.6	7.3	0.2
other eels	tons	-	-	-	5.5	10.0	1.5	0.2	0.08	0.1	0.01
Total	tons	25.0	13.1	3.8	7.7	11.5	14.0	3.0	3.7	7.4	0.2

Other data on aquaculture

Item	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Scale of aquaculture industry	hectares of aquaculture area	1,823	1,714	814	449	305	456	391	392	510	

Notes:

1. The statistic period of the data related to glass eel (catch of glass eel, fishing effort of glass eel and input of glass eel into aquaculture ponds) should be the fishing season of glass eel ("20XX-XX+1" means the input season which starts from 1st November, 20XX to 31st October, 20XX+1.), while that for other data should be the calendar year.
 2. When data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
 3. Unit for catch of glass eel, catch of adult eel, input of glass eel into aquaculture ponds and aquaculture production should be weight (kilograms or metric tons) as far as possible.
 4. Unit for fishing effort on glass eel and scale of aquaculture industry can be chosen by each Economy, taking into account availability of information. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels. Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.
 5. When there is no available statistics for catch of wild adult eel, research activities which could indicate the trend of the wild adult eel stock should be considered as an alternative.
 6. The data of input of glass eel into aquaculture ponds and aquaculture production should be entered by species (japonica, rostrata, bicolor, etc) as far as possible. When it is not possible to provide species-specific data, enter the data in the box of "Total".
- *1 The catch of glass eel 2017–2018 season is preliminary data from 1st November to 30th March.
 *2 The input of glass eel into aquaculture ponds 2017–2018 season is preliminary data from 1st November to 10th May

Export of adult eel and eel products

Species	Type/Size	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>Anguilla japonica</i>	live eel	tons	5,486	8,979	4,997	1,363	867	892	2,845	2,544	2,030	
	prepared eel	tons	1,015	1,706	803	303	155	137	487	207	135	
	roasted eel	tons	205	780	330	68	21	17	75	23	0	
<i>Anguilla marmorata</i>	live eel	tons	0	29	283	95	16	0	14	0	18	
<i>Anguilla australis</i>	live eel	tons	0	0	0	0	0	0	0	0		
other eels	live eel	tons	0	0.38	0	0	2	20	0	0		

Export of glass/juvenile eel

Species	Type/Size	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<i>Anguilla japonica</i>	glass eel	tons	0	0	0	0.9	0.1	0.2	0	0.00	0	
	eel fry	tons	0	0	0	0.4	0.02	0.01	0	0.10	0	
	young eel	tons	0	0	0	0.04	2.08	0	0	0.00	0	

Import of adult eel and eel products

Species	Type/Size	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>Anguilla japonica</i>	live eel	tons	0.8	3.1	0.8	0.3	0	0	0	0		
	prepared eel	tons	0	0	0	0	0	0.003	0.018	0.147	6.5	
	roasted eel	tons	0	0	0	0	0	0	0	0		
<i>Anguilla marmorata</i>	live eel	tons	0	5.2	11.6	10.7	7.7	4.2	0.8	0.628	3.3	
<i>Anguilla australis</i>	live eel	tons	13.5	18.1	12.9	0	0	0	0.4	0		
other eels	live eel	tons	1.3	0.2	0	0	0	24.1	3.3	0		

Import of glass/juvenile eel

Species	Type/Size	Unit	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<i>Anguilla japonica</i>	glass eel	tons	2.9	0.1	0.4	1.3	0.7	2.0	0.6	0.40	0.7	
	eel fry	tons	6.8	1.0	0.8	0.5	0.7	4.3	0.1	0.80	2	
	young eel	tons	63.5	24.0	29.6	6.1	2.9	34.1	21.2	20.10	33	

Notes:

1. The statistical period of the data of export and import of glass/juvenile eel should be the fishing season of glass eel, while that for other data should be the calendar year.
2. When data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
3. Unit should be weight (kilograms or metric tons) as far as possible.
4. Examples of type/size of export and import of adult eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.
5. Examples of type/size of export and import of glass/juvenile eel may include glass eel, elver, eel fry or juvenile eel. The classification of concrete size (e.g. less than 15cm, 501-5000pcs/kg, etc) can also be entered.
6. The data should be entered by species (japonica, rostrata, bicolor, etc) as far as possible. When it is not possible to provide species-specific data, enter the data in the box of "Total".

Data Sources and/or Methods to collect or estimate the data

Item	Data Sources and/or Methods to collect or estimate the data
Catch of glass eel	<p>The data of catch of glass eel originates from the Taiwan Fisheries Statistical Yearbook. The local governments collect the data through regional fisherman' s associations and report to Fisheries Agency seasonally. If there is any unreasonable point found, Fisheries Agency will request the local governments recheck and reconfirm. Besides, Japanese eel is the majority of species (<i>Anguilla</i> spp) but it may possibly cover a little of other eel species.</p> <p>The original unit for catch of glass eel is PCs and it has been converted to weight by the rate of 5,000 PCs/ Kg. Besides, the fishing periods year has been adopted from 2011.Hence, it might be difficult to retrace the original condition, so only reasonable data are provided. The data of 2013 is estimated number, which could be adjusted after confirmed.</p>
Fishing effort on glass eel	The number of fishing vessel, which is authorized to catch fish fry, including glass eel.
Catch of adult eel	-
Input of glass eel into aquaculture ponds	The data of Japanese eel and other eel are compiled by Taiwan eel farming industry development foundation based on the reports from its member on input.
Scale of aquaculture industry	The scale of aquaculture is measured by aquaculture area (hectare). The data of aquaculture area originate from the Taiwan Fisheries Statistical Yearbook. The local governments collect the data through the oral questionnaire surveyed by the offices of village, town, or district, and report to Fisheries Agency seasonally. If there is any unreasonable point found, Fisheries Agency will request the local governments recheck and reconfirm. The data of 2013 is estimated number, which could be adjusted after confirmed.
Export of adult eel and eel product	The data of exportation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of the Republic of China) code are 3019210101(Live Japanese eel), 16041910112(Prepared eel), 16041910130(Roasted eel), 03019210904(<i>Anguilla marmorata</i>), 03019929407(<i>Anguilla australis</i>) and 03019210209(<i>Anguilla</i> spp.). Besides, since 2013, the CCC code of Prepared eel has been changed as 16041700116 and Roasted eel as 16041700125.
Export of juvenile eel	The data of exportation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of the Republic of China) code are 3019220109[Glass eel (over 5,000 pcs per Kg)], 3019220207[Eel fry (501-5,000 pcs per Kg)] and 3019220305[Young eel (11-500 pcs per Kg)].
Import of adult eel and eel product	The data of importation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of the Republic of China) code are 3019210101(Live Japanese eel), 16041910112(Prepared eel), 16041910130(Roasted eel), 03019210904(<i>Anguilla marmorata</i>), 03019929407(<i>Anguilla australis</i>) and 03019210209(<i>Anguilla</i> spp.). Besides, since 2013, the CCC code of Prepared eel has been changed as 16041700116 and Roasted eel as 16041700125.
Import of juvenile eel	The data of importation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of the Republic of China) code are 3019220109[Glass eel (over 5,000 pcs per Kg)], 3019220207[Eel fry (501-5,000 pcs per Kg)] and 3019220305[Young eel (11-500 pcs per Kg)].