



ORNAMENTAL AQUATIC TRADE ASSOCIATION LTD.

"The Voice of the Ornamental Fish Industry"

1st Floor Office Suite, Wessex House

40 Station Road, Westbury, Wiltshire

United Kingdom BA13 3JN

T: +44 (0)1373 301353 F: +44 (0)1373 301236

info@ornamentalfish.org www.ornamentalfish.org

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EU Ornamental Fish Import & Export Statistics 2016 (Third Countries & Intra-EU Community trade)

Ornamental fish imported to the EU from non-EU Member States (extra-EU trade) arrive via Border Inspection Posts (BIPs). At clearance, the relevant customs authorities log the value and freight weight of these consignments. "Live ornamental freshwater fish" and "Live ornamental fish (excl. freshwater)" (marines) are given different commodity codes, these being: 03011100 for freshwater fish and 03011900 for marines. No further differentiation can then be made, e.g. whether they are coldwater or tropical fish. These two commodity codes do not cover imports/exports of ornamental invertebrates such as corals, molluscs or crustaceans.

Imports to the EU

The value of imports appears to be accurately recorded but freight weights (other than in the UK) seem to be inaccurately and/or poorly recorded. Therefore, no analysis of freight weights has been attempted. Value is not the most reliable indicator of the volume (number) of ornamental fish due to factors such as variations in the price of fish, inflation, variation in rate of exchange, cost of freight and fuel, etc. This can make the direct comparison between years difficult, but it is the best data available. Every year, OATA prepare this report with data from Eurostat records. Eurostat are provided with trade data from EU Member States and then convert this data to Euros, based on a monthly exchange rate (Chesson, 2017).

Figure 1 below shows the total value of freshwater and marine ornamental fish imports into the EU between 2005 and 2016. Although the total value of imports for ornamental fish into the EU has declined in the past decade (there has been a 16% decrease from the peak in import values of €93.4 million seen in 2006 to €78.3 million in 2016), there has been an increase of 8% in relation to the lowest import value of €72.3 million in 2014. Values have held for 2016 in relation to 2015 with a 0.1% increase (€78.3 million for 2016 compared to €78.2 million for 2015).

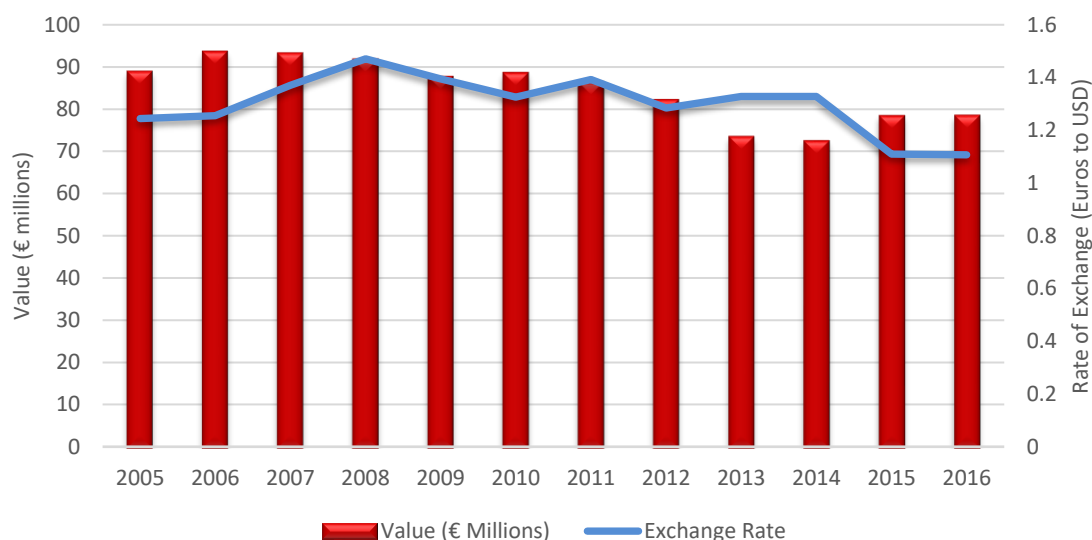


Figure 1: Total value of freshwater and marine ornamental fish imports into the EU (from non-EU countries) between 2005 and 2016. Values given are in € millions and shown against the rate of exchange (Euros to USD) for the years 2005-2016. The Rate of Exchange is based on each year's average exchange rate for 2005 to 2016. Source: European Central Bank (http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=120.EXR.A.USD.EUR.SP00.A)

Importing Countries

The top 5 EU Member States importing ornamental fish, by value, from outside the EU remains the same as in previous years although the order of the next 5 EU Member States has changed slightly for 2016. For 2016, the UK continues to be the largest importer by value in the EU, importing almost 27% of the total, which is down on 2015 with a 4% decrease on import value (Figure 2).

Table 1 provides a comparison of import values for the top 10 importing EU Member States between 2010 and 2015. Although the UK is currently the largest importer by value, since OATA's data collection began in 1989, Germany had previously always imported more than the UK, until 2004, when their non-EU imports dropped sharply. This was due to Germany having imported large quantities of ornamental fish from the Czech Republic, which became a member of the EU in 2004.

The value of imports from non-EU countries to the Netherlands has almost doubled since 1993, although it remains the third largest importer of ornamental fish, as from 2006 to the present day. The value of imports between 2015 and 2016 has only increased slightly at 0.1%.

Whereas previously Spain and Belgium had been the fifth and sixth largest importers, for 2016, their positions within the top 10 have switched as has also occurred for Poland and the Czech Republic (now eighth and ninth respectively whereas in 2015, the Czech Republic had been the eighth largest importer with Poland as ninth). Spain, the Netherlands and the Czech Republic re-export much of what they import to elsewhere in the EU. Although the total value of non-EU imports for France had remained relatively static from 1993 until 2013, the value of imports into France have been experiencing a decline, a trend which is continuing for 2016 with an almost 2% decrease in import values.

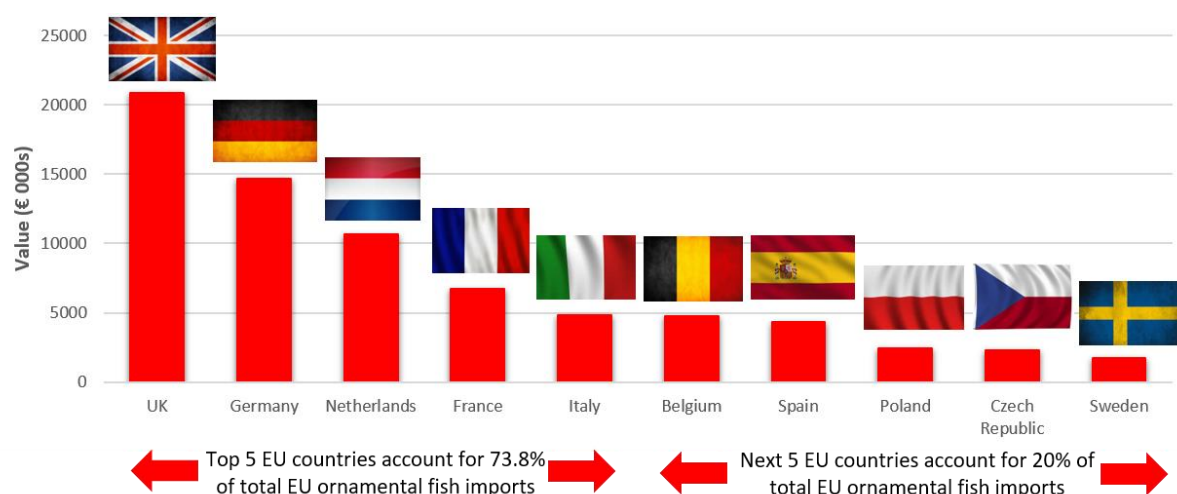


Figure 2: Top 10 EU countries importing ornamental fish from non-EU countries for 2016

COUNTRY		2016		2015		2014		2013		2010	
	Position for 2016	€ (000s)	% of total EU imports	€ (000s)	% of total EU imports	€ (000s)	% of total EU imports	€ (000s)	% of total EU imports	€ (000s)	% of total EU imports
United Kingdom	1	20,835	26.6	21,720	27.8	19,745	27.3	19,639	26.8	20,920	23.7
Germany	2	14,698	18.8	14,707	18.8	13,149	18.2	13,547	18.5	16,813	19
Netherlands	3	10,664	13.6	10,652	13.6	9,069	12.5	8,728	11.9	11,995	13.6
France	4	6,707	8.6	6,812	8.7	7,212	10	7,595	10.4	9,399	10.6
Italy	5	4,821	6.2	4,979	6.4	4,920	6.8	4,969	6.8	6,741	7.6
SUBTOTAL (1-5)		57,725		58,870	75.3	54,095	74.9	54,478	74.4	65,868	71.9
Spain	7	4,373	6.1	4,340	5.5	4,281	5.9	4,063	5.5	4,973	5.6
Belgium/Luxembourg	6	4,741	5.6	3,447	4.4	3,374	4.7	3,778	5.2	3,975	4.5
Czech Republic	9	2,332	3.1	2,563	3.3	2,205	3.1	2,006	2.7	2,081	2.4
Poland	8	2,459	3	2,280	2.9	1,886	2.6	1,729	2.4	2,094	2.4
Sweden	10	1,715	2.2	2,099	2.7	1,974	2.7	1,932	2.6	2,013	2.3
SUBTOTAL (1-10)		73,345	93.6	73,599	94.1	67,815	93.8	67,986	92.7	81,004	91.7
Others		4991	6.4	4,624	5.9	4,450	6.2	5,352	7.3	7,375	8.3
GRAND TOTAL		78,336		78,223		72,265		73,338		88,379	

Table 1. Top 10 EU countries importing ornamental fish from non-EU countries between 2010 and 2016

For 2016, imports into EU Member States of freshwater ornamental fish from non-EU countries accounted for 81.9% of the total value of imports for that year, with the remaining 18.1% attributed to the import of marine ornamental fish.

Table 2 shows the top 10 importers of freshwater fish into the EU and **Table 3** lists the top 10 importers for marine species for 2016, from non-EU countries.

Table 2. Top 10 freshwater fish importers (2016)

Country	€ (000s)	% of total freshwater imports
U.K.	16,665	26.0
Germany	12,081	18.8
Netherlands	8,300	12.9
France	5,417	8.4
Belgium	4,603	7.2
SUBTOTAL (1-5)	47,066	73.4
Spain	3,817	6.0
Italy	3,247	5.1
Czech Republic	2,175	3.4
Poland	2,127	3.3
Sweden	1,528	2.4
SUBTOTAL (1-10)	12,894	20.1
Others	4,164	6.5
GRAND TOTAL	64,124	

Table 3. Top 10 marine fish importers (2016)

Country	€ (000s)	% of total marine imports
U.K.	4,170	29.3
Germany	2,617	18.4
Netherlands	2,364	16.6
Italy	1,574	11.1
France	1,290	9.1
SUBTOTAL (1-5)	12,015	84.5
Spain	556	3.9
Poland	332	2.3
Portugal	262	1.8
Sweden	187	1.3
Czech Republic	157	1.1
SUBTOTAL (1-10)	1,494	10.5
Others	703	4.9
GRAND TOTAL	14,212	

Source Countries

In 2016, EU Member States imported ornamental fish from 62 non-EU countries¹ and territories around the world. Of these, 25 exported both freshwater and marine fish; 20 exported freshwater fish only and the remaining 17 exported marine fish only. These countries are listed in **Appendix 1** and shown in **Figure 3**.

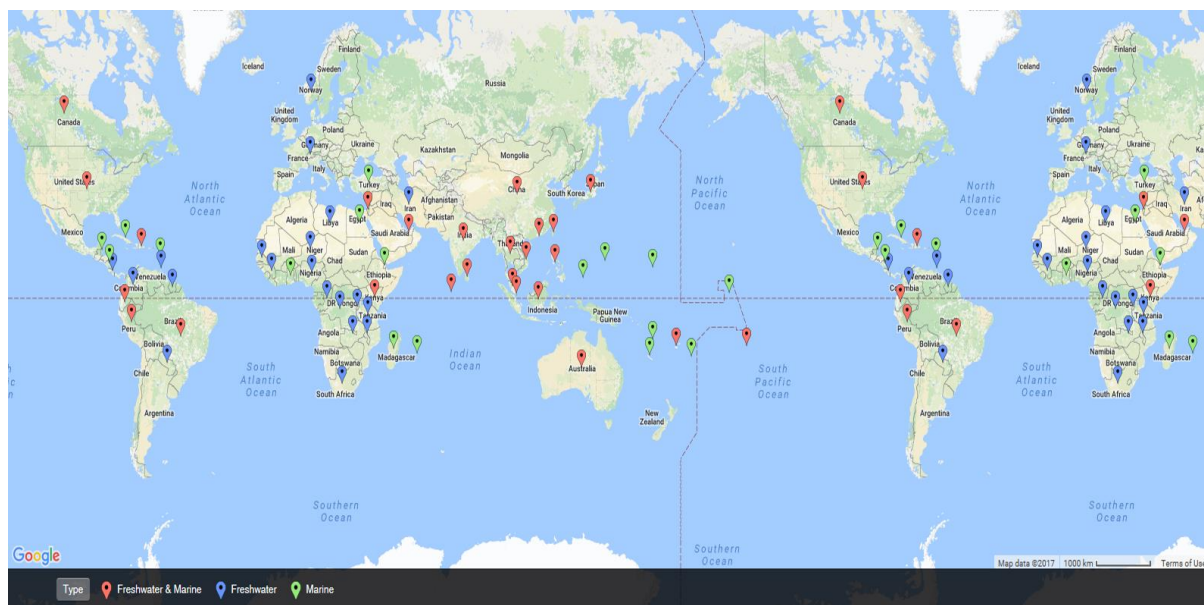


Figure 3: Map showing countries of origin (non-EU) for ornamental fish imports into the EU for 2016. Key: Red marker (Non-EU countries exporting both Freshwater & Marine fish); Blue marker (Non-EU countries exporting Freshwater fish only); Green marker (Non-EU countries exporting Marine fish only)

The top source of ornamental fish into the EU for 2016 was Singapore, as per previous years, accounting for just over 21% by value of all fish entering the EU. As in 2015, over 68% by value of all fish entering the EU originated from just 5 countries. With regards to the top 10 non-EU countries of origin for marine and freshwater fish combined, the majority remain the same as in 2015 and 2014, although there has been a change in position for 2016. For 2016, Japan has replaced Indonesia as the third largest source of ornamental fish entering into the EU, with the Philippines entering the top 10 for 2016, replacing China which had previously been 10th for 2015 and is now 11th for 2016. **Table 4** below lists the Top 20 non-EU sources of ornamental fish in 2016 (freshwater and marine species combined).

¹ This number includes French Polynesia, Guam, Hong Kong, New Caledonia and Taiwan that do not have official country/ republic status.

Table 4. Top 20 Non-EU sources of all types of ornamental fish imported into the EU (2016)

Source Country	Value (€ 000s)	% of Total EU Imports
Singapore	16,607	21.2
Israel	11,692	14.9
Japan	10,620	13.6
Indonesia	9,795	12.5
Thailand	4,972	6.3
SUBTOTAL 1-5	53,686	68.5
Sri Lanka	4,634	5.9
USA	2,785	3.6
Colombia	2,219	2.8
Vietnam	2,093	2.7
Philippines	1,514	1.9
SUBTOTAL 1-10	66,931	85.4
China	1,468	1.9
Brazil	1,444	1.8
Kenya	1,216	1.6
Peru	1,164	1.5
Malaysia	1,020	1.3
SUBTOTAL 1-15	73,243	93.5
Maldives	701	0.9
Switzerland	687	0.9
Hong Kong	624	0.8
Taiwan	393	0.5
Australia	309	0.4
SUBTOTAL 1-20	75,957	97.0
Total from remaining 41 countries	2,379	3.0
GRAND TOTAL	78,336	100

Imports of marine ornamental fish arrived into the EU from 42 different countries, whereas freshwater fish were supplied by 45 different countries. **Table 5** lists the top 10 sources of freshwater ornamental fish, which remain the same as in previous years, except Thailand is now the 4th largest exporter of freshwater ornamental fish to the EU, instead of Indonesia in 2015.

Total value of imports of freshwater fish in 2016 has decreased by 0.2% compared to 2015. **Figure 2** shows trends in value of imports of freshwater fish into the EU between 2010 and 2016. A list of all countries exporting freshwater fish to the EU in 2015 is provided in **Appendix 1**.

Table 5. Top 10 non-EU sources of freshwater ornamental fish imported to the EU in 2016

Country	Value (€ 000s)	% of Total EU Imports
Singapore	16,450	25.7
Israel	11,476	18.0
Japan	10,495	16.4
Thailand	4,949	7.7
Indonesia	4,599	7.2
SUBTOTAL 1-5	47,969	74.8
Sri Lanka	3,421	5.3
Colombia	2,219	3.5
Vietnam	2,044	3.2
China	1,468	2.3
Brazil	1,398	2.2
SUBTOTAL 1-10	10,550	16.5
Total from remaining 35 countries	5,605	8.7
GRAND TOTAL	64,124	100

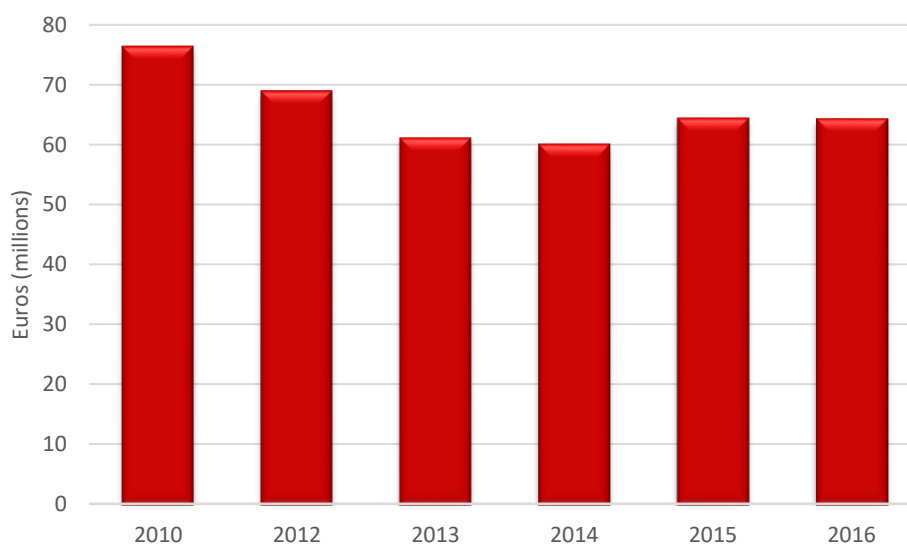


Figure 2. Value of freshwater ornamental fish imports into the EU between 2010 and 2016 (these values are exclusive of exchange rate adjustment between years).

Table 6 lists the top 10 sources of marine ornamental fish, which remain mostly the same as in 2015, with the exception that Vanuatu has replaced Singapore in the 10th position. The value of marine imports has remained fairly constant since 2010, with a small increase in 2016 of 1.6% relative to 2015, which is much smaller than the 13% increase seen in 2015 compared to 2014. **Figure 3** shows trends in value of imports of marine ornamentals into the EU between 2010 and 2016. A list of all countries exporting marine ornamental fish to the EU in 2016 is provided in **Appendix 1**.

Table 6. Top 10 non-EU sources of marine ornamental fish imported to the EU in 2016

Country	Value (€ 000s)	% of Total EU Imports
Indonesia	5,196	36.6
U.S.A.	2,395	16.9
Philippines	1,473	10.4
Sri Lanka	1,213	8.5
Kenya	1,128	8.5
SUBTOTAL 1-5	11,405	80.2
Maldives	694	4.8
Australia	296	2.1
Fiji	260	1.8
Israel	216	1.5
Vanuatu	190	1.3
SUBTOTAL 1-10	1,656	11.7
Total from remaining 36 countries	1,151	8.1
GRAND TOTAL	14,212	100

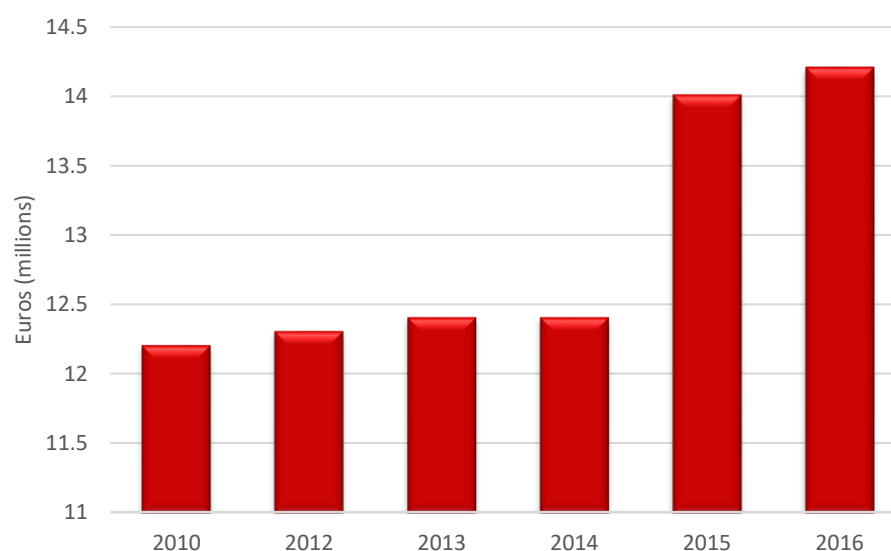


Figure 3. Value of marine ornamental fish imports into the EU between 2010 and 2016 (these values are exclusive of exchange rate adjustment between years).

Trade between EU Member States

For 2016, there were 8 EU Member States that did not appear to export any ornamental fish, these being: Croatia, Cyprus, Finland, Hungary, Latvia, Luxembourg, Malta and Slovenia. The largest EU exporters overall continue to be Spain, followed by the Czech Republic and the Netherlands.

Trade between EU Member States is mostly fish that are imported from third countries and then re-exported, although ornamental fish are produced by some member states, particularly the Czech Republic. As imports and exports of ornamental fish between EU Member States are not required to pass through border inspection posts (BIPs), data on the trade value is collected via EU VAT submissions rather than customs records, and can be therefore incomplete. Therefore, when referring to trade figures between EU Member States, these should be treated with caution and viewed as being indicative only.

Trade flows (import/export) between EU Member States should be expected to match but historically there have always been discrepancies (referred to as trade asymmetries) in the reporting of such trade flows. There are various reasons for such trade asymmetries such as timing and valuation differences, discrepancies in currency conversions of final estimates provided by Member States and methodological differences. However, when trade asymmetries are considered in the scale of global trade volumes, they are estimated to be very low (Chesson, 2017)²

Table 7 summarises data for the top 10 EU exporters to EU Member States in 2016.

Table 7. Top 10 EU exporters to EU Member States (2016)

Country	Freshwater fish exports (€ 000s)	Marine fish exports (€ 000s)	Total value of exports (€ 000s)	% of Total value of EU exports
Spain	512	34,650	35,162	48.2
Czech Republic	17,242	8	17,250	23.7
Netherlands	3,311	2,899	6,210	8.5
Belgium	2,476	135	2,611	3.6
Germany	2,056	406	2,462	3.4
Greece	35	2,094	2,129	2.9
United Kingdom	1,274	736	2,010	2.8
France	380	1,228	1,608	2.2
Italy	457	641	1,098	1.5
Portugal	281	764	1,045	1.4
SUBTOTAL 1-10	28,024	43,561	71,585	98.2
Total from remaining 8 countries	759	566	1,325	1.8
GRAND TOTAL	28,783	44,127	72,910	100

It should be noted that in relation to Table 8 and the value of marine fish exports from Spain, the figure given appears to be a consistent outlier as has occurred in previous years. Marine fish exports from Spain to other member states had a total value of €34.6 million for 2016, of which 75% (€26.1 million) comprised exports to Italy. We have no explanation as to the reasons why this export value should be so high, given that Spain's marine aquaculture is

² Chesson, A. (2017). Asymmetries in Trade Data - A UK Perspective. [Online]. Available at: <https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/articles/asymmetriesintradedataukperspective/2017-07-13>

predominantly food fish rather than ornamental fish. As trade data between member states is based on EU VAT return submissions rather than customs records via BIPs, this value should be treated with caution in the absence of further information which could explain this outlier value.

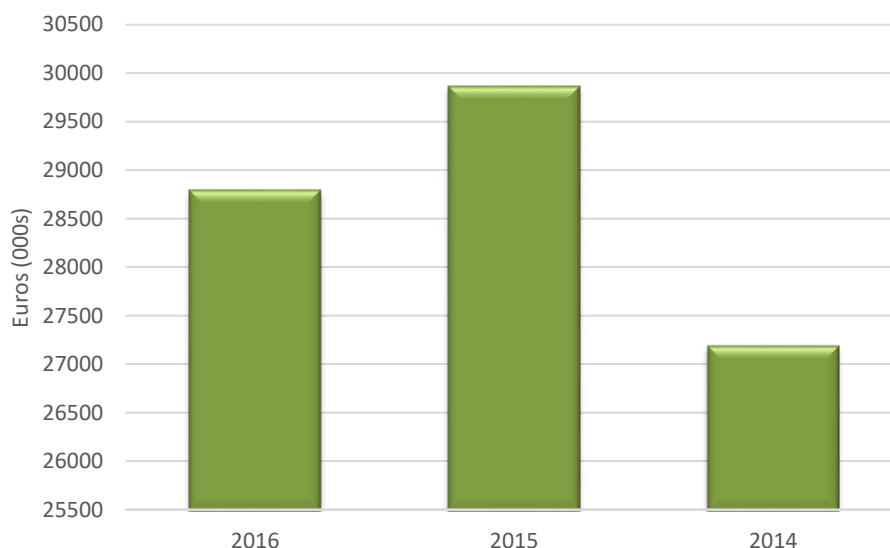


Figure 4: Freshwater ornamental fish exports between EU Member States between 2014 to 2016 (export comparisons pre-2014 have not been undertaken given that Croatia joined the EU in 2013)

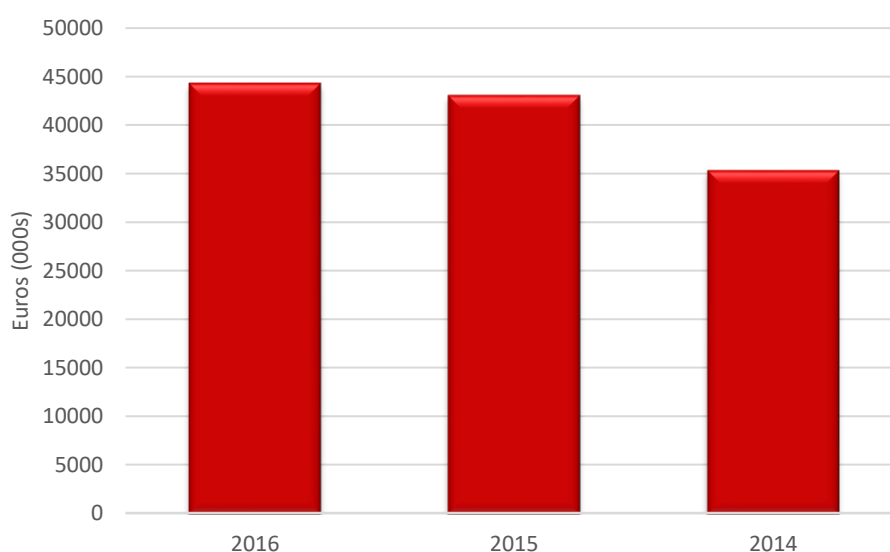


Figure 5: Marine ornamental fish exports between EU Member States between 2014 to 2016* (export comparisons pre-2014 have not been undertaken given that Croatia joined the EU in 2013, * refer to note above re: exports from Spain)

Figure 4 shows the values of exports of freshwater ornamental fish between EU Member States, for 2016 this value was €28.7 million which is a 0.003% decrease on the value for 2015 (€29.8 million). In relation to the value of exports of marine ornamental fish between EU Member States, these are shown in **Figure 5** where the value of exports for 2016 was €44.1 million compared to €42.9 million for 2015 and representing a 2.9% increase (but see previous note regarding outlier value).

Exports from the EU to third countries

Table 8 summarises data for the top 10 EU exporters to non-EU countries for 2016.

Table 8. Top 10 EU exporters to non-EU countries (2016)

Country	Freshwater fish exports (€ 000s)	Marine fish exports (€ 000s)	Total value of exports (€ 000s)	% of Total value of EU exports
Germany	1,629	46	1,675	25.5
Sweden	1,191	14	1,205	18.3
Netherlands	909	277	1,186	18.0
Czech Republic	896	-	896	13.6
Denmark	384	68	452	6.9
Spain	391	6	397	6.0
France	260	39	299	4.5
Austria	181	-	181	2.8
United Kingdom	119	25	144	2.2
Italy	4	47	51	0.8
SUBTOTAL 1-10	5,964	522	6,486	98.6
Total from remaining 5 countries	45	44	89	1.4
GRAND TOTAL	6009	566	6,575	100

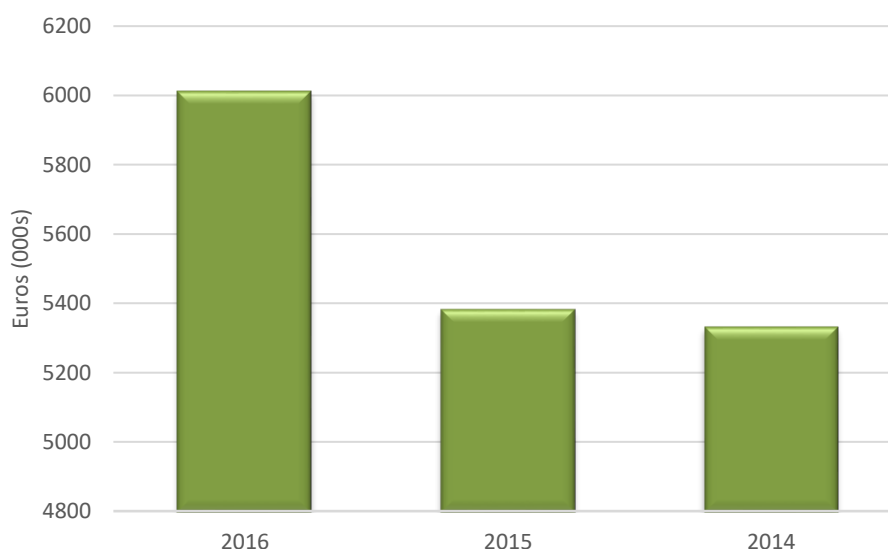


Figure 6: Freshwater ornamental fish exports from EU Member States to Third Countries between 2014 to 2016 (pre-2014 export comparisons have not been undertaken given that Croatia joined the EU in 2013)

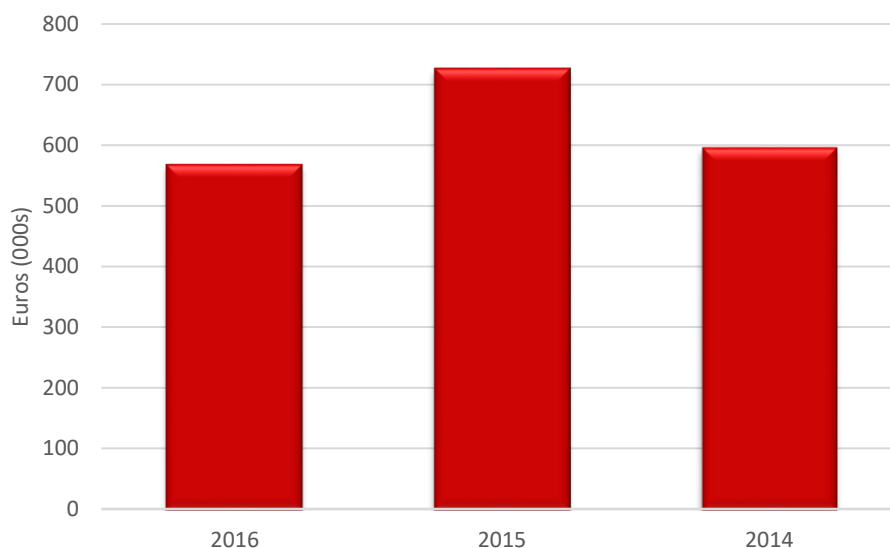


Figure 7: Marine ornamental fish exports from EU Member States to Third Countries between 2014 to 2016 (pre-2014 export comparisons have not been undertaken given that Croatia joined the EU in 2013)

Figure 6 shows the value of freshwater ornamental fish exports from EU Member States to third countries, for 2016, the value of these was €6 million which represents a 11.7% increase on 2015. **Figure 7** shows the value of marine ornamental fish exports from EU Member States to third countries. For 2016, the value of these was €0.6 million but represents a 21.9% decrease when compared to values for 2015, although the value for 2016 is similar to that for 2014.

Appendix 1: Countries and Territories exporting ornamental fish to the EU by type of fish (2016)

Country	Freshwater Only	Marine Only	Freshwater & Marine
Australia			✓
Belize		✓	
Brazil			✓
Burundi	✓		
Canada			✓
China			✓
Colombia	✓		
Congo Dem. Rep. (Zaire)	✓		
Congo Republic	✓		
Costa Rica	✓		
Cuba		✓	
Djibouti		✓	
Dominica		✓	
Dominican Republic			✓
Ecuador			✓
Egypt		✓	
Fiji			✓
French Polynesia			✓
Ghana		✓	
Guam		✓	
Guinea	✓		
Hong Kong			✓
India			✓
Indonesia			✓
Iran	✓		
Israel			✓
Japan			✓
Kenya			✓
Kiribati		✓	
Libya	✓		
Madagascar		✓	
Malawi	✓		
Malaysia			✓
Maldives			✓
Marshall Islands		✓	
Mauritius		✓	
New Caledonia		✓	
Nicaragua		✓	
Niger	✓		
Nigeria	✓		
Norway	✓		
Palau		✓	
Paraguay	✓		
Peru			✓
Philippines			✓
Senegal	✓		
Singapore			✓
South Africa	✓		

Country	Freshwater Only	Marine Only	Freshwater & Marine
Sri Lanka			✓
Surinam	✓		
Switzerland	✓		
Taiwan			✓
Tanzania	✓		
Thailand			✓
Tonga		✓	
Trinidad and Tobago	✓		
Turkey		✓	
USA			✓
United Arab Emirates			✓
Vanuatu		✓	
Vietnam			✓
Zambia	✓		