

The Hidden Truth About Eel Procurement in Japan

A Survey of Processed Eel Product (*Kabayaki*) Sourcing by Major Retailers

I. Background

Four species of eel are being used as ingredients for eel products known as *kabayaki* (grilled eel) consumed in Japan, including the Japanese eel, European eel, American eel, and shortfin eel. Three of these (Japanese, European, and American) are designated as endangered species on the IUCN Red List of Threatened Species.¹ International trade in the European eel, which is listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), has been regulated since 2009, so any imports or exports require specific permission.² The European Union (EU) has banned exports of European eel since 2011.³

Many factors are threatening eels, but besides the deterioration of rivers and other habitats and changes in the marine environment, a major suspected factor is declining populations due to fishing.⁴

As a part of its activities to protect marine ecosystems, Greenpeace Japan has been working since 2013 to study the procurement policies and awareness of supermarkets and other major Japanese retailers in relation to eel, which is still being widely consumed in Japan even though it is designated an endangered species. As an ingredient for *kabayaki*, eel is known to be at high risk of involving illegal, unreported, and unregulated (IUU) fishing. This survey was carried out to shed light on the handling of and procurement policies for eel products (*kabayaki*), the transparency of the supply chain, and areas of concern in eel procurement.

Japanese name	Scientific name	IUCN Red List Category	Category in Japan	Designated
Japanese eel	<i>Anguilla japonica</i>	Endangered (EN)	Endangered IB	2014
European eel	<i>Anguilla anguilla</i>	Critically Endangered (CR)	Critically Endangered IA	2008
American eel	<i>Anguilla rostrata</i>	Endangered (EN)	Endangered IB	2014
Shortfin eel*	<i>Anguilla bicolor</i>	Near Threatened (NT)	Near threatened	2014

* Also known as bicolor eel.

II. Survey Details

The survey targeted a total of 18 major retailers, including 17 that were included in previous “Supermarket Ranking for Sustainable Seafood” surveys for seafood procurement policies and eel procurement surveys, plus Palsystem which was added this time. The two-phased study consisted of DNA testing of eel products (*kabayaki*) being sold by the target companies, and then a questionnaire survey about the procurement of eel products. First, eel products and prepared food items using eel products were purchased from stores and other outlets of the 18 target companies to request an independent DNA testing laboratory to determine the eel species. Then, the 18 companies were requested to answer a questionnaire about the handling of and procurement policies for eel products, the species of eel being used as ingredients for eel products that had been tested for DNA, and details about their supply chains.

18 Target Companies

- Questionnaire completed

Aeon Co., Ltd., Izumi Co., Ltd., Ito-Yokado Co., Ltd., Okuwa Co., Ltd., Co-op Deli Consumers’ Co-operative Union, Seiyu GK, The Daiei, Inc., Valor Holdings Co., Ltd., Palsystem Consumers’ Co-operative Union, Heiwado Co., Ltd., The Maruetsu, Inc., Yaoko Co., Ltd., UNY Co., Ltd., York Benimaru Co., Ltd., Life Corporation, Ralse Co., Ltd.

- Questionnaire not completed

Izumiya Co., Ltd, Fuji Co., Ltd.

Implementation of DNA testing (from start of purchasing eel products (*kabayaki*) to end of DNA testing)

September 12 to October 30, 2017

Implementation of questionnaire survey November 29, 2017 to January 22, 2018

III. Findings and Key Issues

1. 16 major retailers sold mainly Japanese eel. No companies sold European eel.

Eel Species Being Handled (2017)				
	Japanese eel	European eel	American eel	Shortfin eel
Aeon	YES	No	No	YES
Izumi	YES	No	No	No
Ito Yokado	YES	No	No	No
Okuwa	YES	No	No	No
Co-op Deli	YES	No	No	No
Seiyu	YES	No	No	No
Daiei	YES	No	No	YES
Valor	YES	No	YES	No
Palsystem	YES	No	No	No
Heiwado	YES	No	No	No
Maruetsu	YES	No	YES	No
Yaoko	YES	No	No	No
UNY	YES	No	No	No
York Benimaru	YES	No	No	No
Life	YES	No	No	No
Ralse	YES	No	YES	No
Number of Companies	16	0	3	2

In 2017 Greenpeace Japan investigated which eel species are being used as an ingredient in *kabayaki* sold by 16 major retailers in Japan. All 16

companies that responded were selling Japanese eel *kabayaki*, of which 11 companies said they were selling *kabayaki* made exclusively from Japanese eel. The 12 companies responding to the question about volumes handled were selling more than 1,200 tons of *kabayaki* made from Japanese eel. No companies reported selling European eel, three reported American eel (Valor, Maruetsu, and Ralse), and two reported shortfin eel (Aeon and Daiei). Previous studies found that as of July 2014, at least eight major retailers were selling European eel, but by July 2015, all eight had reportedly stopped.⁵ This change is believed to be an outcome of the CITES and EU export regulations. Conversely, this suggests that demand shifted toward Japanese eel and other so-called “alternative species” that were not regulated. With the current survey, three companies (Maruetsu, UNY, and Ralse) indicated they could have future sales of alternative species, which leads to concerns about impacts of the current large drop in glass eel catches on the sourcing of Japanese eel. This means that comprehensive conservation measures need to cover multiple species of eels that are designated as endangered, because the species being consumed in Japan tend to vary depending on whether or not they are regulated and on catch sizes of glass eels.

2. DNA tests reveal discrepancies with questionnaire responses. Retailers don’t know what eel species they are procuring. Consumers don’t know what eel species they are eating.

Among the 55 eel products subjected to the DNA tests, 51 were determined to be Japanese eel. The remaining four were American eel, and they were being sold by Okuwa, Fuji, UNY, and Ralse. Based on their 2017 questionnaire responses, Okuwa and UNY were supposedly selling only Japanese eel at that time. For the eel products subjected to the DNA testing, these firms had stated the species was Japanese eel. After the DNA testing, when we asked follow-up questions about how they had sourced American eel, we learned that Okuwa had specified the species it sourced and was selling items as originating from China, and that it confirmed from invoices that the products were Japanese eel at the time of import and by DNA profiling by an external laboratory. Regarding the products associated with UNY, it became clear that UNY had not sourced them directly, that they were being sold by store tenants, and that the species of imported products had not been verified. Daiei, meanwhile, correctly stated that three eel products we subjected to DNA testing were Japanese eel, although their response stated that they were not able to verify the species. From these results it is clear that companies procuring eel do not know with certainty what species of eel they are selling, that the supply chain for the procurement of eel products is seriously opaque, and that there are significant deficiencies in traceability. This Greenpeace Japan study happened to expose discrepancies with two companies, but we believe that these are not extreme cases and that discrepancies could occur with many other vendors.

Based on the DNA testing results, Okuwa stated that it will continue to verify species, and UNY stated it will make its best effort to work with tenants for sustainable procurement, dealing with endangered species, and promoting traceability.

3. No certainty that eel products being sold do not involve IUU fishing or trafficking. Entire supply chain is questionable.

Based on the Greenpeace Japan survey, for 11 of 16 companies that were selling Japanese eel (Aeon, Izumi, Co-op Deli, Seiyu, Daiei, Palsystem, Heiwado, Maruetsu, Yaoko, UNY, and Life) we learned that none of the products could be reliably verified not to involve IUU fishing or trafficking. None of the 11 companies were able to clarify the entire supply chain from fishing (when glass eels were caught) to sales in stores, and for all of them the reason was that it was impossible to trace the process from glass eels being caught to the point they are placed in an aquaculture pond.

Tally of Major Retailers' Responses on Procurement of Japanese Eel (based on 2017 reported sales of Japanese eel, by weight)				
	Can you ensure your products involve no IUU fishing and trafficking?	Ratio	Can you trace the entire supply chain of your products?*	Ratio
Aeon	NO		NO	
Izumi	NO		NO	
Ito Yokado	YES	60%	YES	20%
Okuwa	YES	100%	YES	100%
Co-op Deli	NO		NO	
Seiyu	NO		NO	
Daiei	NO		NO	
Valor	YES	100%	NO	
Palsystem	NO		NO	
Heiwado	Unknown		NO	
Maruetsu	NO		NO	
Yaoko	NO		NO	
UNY	Can't confirm	Can't calculate	Can't confirm	Can't calculate
York Benimaru	YES	80%	o	20%
Life	NO		NO	
Ralse	YES	100%	NO	

YES: Can be confirmed for some products
NO: Cannot be confirmed for any products

YES: Clearly known for some products
NO: Not clearly known for any products

* Supply chain here refers to the steps from being caught (or harvested in the case of aquaculture) until the point of sale (from retail store, etc.)

The majority of companies could not ensure that their products did not involve IUU fishing or trafficking, while three companies responded that they could ensure this (Okuwa, Valor, and Ralse) for 100% (ratio of total weight handled), York Benimaru 80%, and Ito-Yokado 60%. Regarding the ratio of products for which the entire supply chain was clearly known, there were differences in numbers, with Okuwa reporting 100%, Valor and Ralse both 0% (meaning they could not ensure any products), and York Benimaru and Ito-Yokado both 20%. These numbers suggest that they may not believe it is necessary to clearly know the supply chain in order to ensure legality, or that they may not have a clear understanding of the issues involved. We note that Valor and Ralse gave similar replies for American eel.

It should be noted that Okuwa responded that it could trace the entire supply chain, but for details of the supply chain could only provide the importer's company name; meanwhile, our DNA testing detected

American eel (which it was supposedly not handling), so this firm’s claims about traceability are highly questionable.

The only two companies that handled shortfin eel (Aeon and Daiei) reported that they could ensure no involvement of IUU fishing and trafficking for their shortfin eel *kabayaki* products, and that they could trace the entire supply chain (not shown in the above table).

4. Questions about Corporate Ethics

Based on the questionnaire results, Greenpeace Japan found that all 16 companies that answered the questionnaire are aware that eels have a high risk of involving IUU fishing and trafficking. Also, even though they were fully aware that traceability was inadequate (they could not clearly describe the supply chain from the point glass eels are caught — location or entity collecting the catch — to the point they are placed in aquaculture ponds), they were not conveying information about this risk to consumers. Can they really claim they are acting properly as corporations when they are failing to disclose this type of information and still selling the products? In terms of their responsibility to consumers, we can see why these issues have been left unaddressed for so long: although some companies admitted there is a need to improve traceability, many reported that it was not possible to trace the supply chain with existing systems. To address these problems, companies need to take urgent and concrete action to ensure traceability, and they should convey information to consumers about the current state of traceability and risks, such as the potential involvement of trafficking.

5. Huge Amount of Japanese Eel Being Dumped

Amount of Unsold Eel Products Being Disposed	
Aeon	Almost zero
Izumi	Some
Ito Yokado	Sometimes disposing
Okuwa	Some
Co-op Deli	Unknown
Seiyu	Not disclosed
Daiei	Some
Valor	Some
Palsystem	None
Heiwado	Some
Maruetsu	Almost zero
Yaoko	None
UNY	Some
York Benimaru	Sometimes disposing
Life	Almost zero
Ralse	Some

Among the 16 major retailers that were selling eel products (*kabayaki*) in 2017, only two (Palsystem and Yaoko) reported clearly that no unsold products were being dumped. Greenpeace Japan believes that at least ten of the retailers (AEON, Izumi, Okuwa, Daiei, Valor, Heiwado, Maruetsu, UNY, Life, and Ralse) dumped some unsold products. Only five companies provided numbers on amounts dumped, and we learned that they were dumping approximately 2,730 kilograms of Japanese eel (*kabayaki*) in 2017. Assuming that cultured eels typically grow to 200 to 300 grams, and using 200 grams for conversion, this would suggest that these major retailers had dumped at least 13,650 individual Japanese eels.⁶

Threats to this endangered species should be eliminated to the extent possible and efforts should be made to restore populations. However, as massive sales continue, it is wasteful consumption when a creature facing extinction is being dumped without even being consumed as food. The reduction of food loss is becoming a major concern globally, so there is a huge problem with such a large volume of eel being dumped. If some companies have found ways to reduce the amount being dumped as waste, we hope that they will share their methods to help improve the entire industry.

Also, we call upon the companies that provided vague responses such as “almost zero,” “not disclosed,” “unknown,” or “sometimes disposing” to recognize that they are dealing with the lives of living creatures and to make a greater effort to be ethical retailers.

IV. Recommendations for Sustainable Eel Procurement

This survey reconfirmed that the procurement and consumption of eels involves a host of environmental and societal issues that need to be addressed. Rather than looking for partial solutions, fisheries, aquaculture and retail industries, and all stakeholders need to develop a shared awareness of the issues. Without action on concrete strategies to improve the situation, it will be impossible to solve the problems. As a concrete start on solutions, Greenpeace Japan recommends the following actions.

✓ Stop selling endangered species

Eels are high-level predators in the food chain and keystone species that are essential to maintain healthy ecosystems. Japanese, American and European eels being widely consumed in Japan are all endangered species, so the highest priority should be to eliminate any possible threats and help populations recover. One of the threats is the fishing of eels, so we call for their sales to halt.

✓ Take concrete action to help populations recover

For the sustainable use of not only eels but other seafood as well, it is important to establish concrete indicators for fish catches and related measures. For the Japanese eel, upper limits on the total amount of glass eels placed in ponds have been established for the purpose of resource management, but they are vastly lower than the volume of glass eels actually being placed in aquaculture ponds, so it is abundantly clear that the regulations are not functioning properly.⁷ Resource management regulations do need to be improved as quickly as possible. One effective measure would be to have vendors voluntarily reduce their sales volumes. When setting upper limit for sales volumes, it would be important to define them in terms of the number of individual eels. Upper limits based on fluctuating wholesale prices for glass eels or eel products would be meaningless, if the true aim was to restore resources or populations. In some cases, that approach could actually increase sales volumes. Also, concrete initiatives to restore populations should be

reported broadly to consumers. Initiatives to restore populations need to be scientifically based and scientifically verified as being effective. If these recommended actions are taken, consumers will be able to choose those companies that are fulfilling their social responsibilities.

✓ **Take concrete actions to ensure traceability**

✓ **Display the species of eel on product labels**

Vendors of eel products (*kabayaki*) only display “eel” (*unagi* in Japanese) as the name of the ingredient, and it is not mandatory to display the species name (e.g., Japanese or European eel). However, the basic rule under the labeling guidelines for seafood established by Japan’s Fisheries Agency is to use the standard Japanese name for the labeling of the seafood. For the Japanese eel, the standard Japanese name was changed from simply “eel” (*unagi*) to “Japanese eel” (*Nihon unagi*) in 2013, and notifications went out from the related associations to recommend that vendors use labeling that displays the words “Japanese eel.”⁸ Despite the fact that five years have passed since then, however, only a small fraction of eel products are actually displaying the words “Japanese eel.” Having vendors ascertain correctly the species of eel they handle will play a key role in improving traceability of the product up to the previous stages (before retail) of the supply chain. It is also the responsibility of corporations to provide correct information to consumers about the species of eels that are sold.

✓ **Be fully accountable to consumers**

As part of their responsibility to consumers, corporations should not conceal but should actively disclose any information that would have a significant impact on fair and responsible consumer behavior for the environment and society. In particular, we call upon corporations to immediately start providing information, including data on eel populations and the state of resources, the fact that eel procurement involves a high risk of IUU fishing and trafficking, information known about the supply chain for each product, and information corporations already know about the inadequacies to ensure traceability of the products.

Appendices

1. FACTSHEET: Everything You’ve Been Wanting to Know About Eel Conservation Issues

http://www.greenpeace.org/japan/Global/japan/pdf/20180604_Factsheet_Eel_ENG.pdf

2. Detailed company responses to questionnaire

(Handling of eel products (*kabayaki*) designated as endangered and near-endangered species, based on 2017

actual sales) (19 pages, in Japanese)

http://www.greenpeace.org/japan/Global/japan/pdf/20180604_Answers_Eel.pdf

Notes and References

¹ Categories of four eel species in the IUCN Red List

Japanese eel: <http://www.iucnredlist.org/details/166184/0>

European eel: <http://www.iucnredlist.org/details/60344/0>

American eel: <http://www.iucnredlist.org/details/191108/0>

Shortfin (or bicolor) eel: <http://www.iucnredlist.org/details/166894/0>

² For species listed in Appendix II of the Washington Convention, commercial transactions are permitted with the exporting country's approval, but for international trade, Article 4 of the Convention requires a Scientific Authority of the State to advise that such export will not be detrimental to the survival of that species, and an export permit issued by the exporting country is required. The European eel was listed in Appendix II in 2007, and it became subject to international trade regulations in 2009.

Source: Japan Ministry of Foreign Affairs web page on the Washington Convention

<https://www.mofa.go.jp/policy/environment/convention/cites.html>

³ The European Union determined that it cannot ensure that international trade does not impact this species, and prohibited exports of the European eel in EU member countries starting in 2011.

Source: Working Document for CITES CoP 16, <http://ec.europa.eu/environment/cites/pdf/cop17/eels.pdf>

⁴ Question 2 of Appendix 1: FACTSHEET: Everything You've Been Wanting to Know About Eel Conservation Issues

⁵ Eel Species Being Handled (2014, 2015)

Eel Species Being Handled (2014)				
	Japanese eel	European eel	American eel	Shortfin eel
Aeon	YES	NO	YES	YES
Izumi	YES	●	YES	NO
Ito Yokado	YES	NO	NO	NO
Okuwa	YES	NO	YES	NO
Co-op Deli	Not tested	Not tested	Not tested	Not tested
Seiyu	YES	NO	YES	NO
Daiei	YES	YES	NO	NO
Valor	YES	YES	NO	NO
Palsystem	Not tested	Not tested	Not tested	Not tested
Heiwado	YES	YES	NO	NO
Maruetsu	YES	YES	●	NO
Yaoko	Not tested	Not tested	Not tested	Not tested
UNY	YES	NO	YES	NO
York Benimaru	YES	YES	●	NO
Life	YES	YES	NO	NO
Ralse	YES	YES	●	NO
Number of Companies	13	8	8	1

● : Confirmed by DNA testing

Source: Greenpeace Japan: *Zetsumetsu unagi no fusei na ryutsu* (Illegal trade in endangered eel) (July 2014, in Japanese)

http://www.greenpeace.org/japan/Global/japan/pdf/20140710_EEL.pdf

Eel Species Being Handled (2015)				
	Japanese eel	European eel	American eel	Shortfin eel
Aeon	YES	NO	NO	YES
Izumi	YES	NO	NO	NO
Ito Yokado	YES	NO	NO	NO
Okuwa	YES	NO	NO	NO
Co-op Deli	Not tested	Not tested	Not tested	Not tested
Seiyu	YES	NO	YES	NO
Daiei	YES	NO	YES	NO
Valor	YES	NO	NO	NO
Palsystem	Not tested	Not tested	Not tested	Not tested
Heiwado	YES	NO	NO	NO
Maruetsu	YES	NO	NO	NO
Yaoko	Not tested	Not tested	Not tested	Not tested
UNY	YES	NO	NO	NO
York Benimaru	YES	NO	NO	NO
Life	YES	NO	NO	NO
Raise	YES	NO	NO	NO
Number of Companies	13	0	2	1

Source: Greenpeace Japan: *Unagi no chotatsu ni kansuru anketo chosa* (Survey of eel procurement, published on blog August 2015, in Japanese)

<http://www.greenpeace.org/japan/ja/news/blog/staff/blog/53696/>

⁶ Source: Union of Eel Farmers Cooperatives of Japan: *Kokusan unagi ni tsuite* (About eel production in Japan, in Japanese)

<http://www.wbs.ne.jp/bt/nichimanren/abtunagi.html>

⁷ Question 3 of Appendix 1: FACTSHEET: Everything You've Been Wanting to Know About Eel Conservation Issues

⁸ Source: Fisheries Agency: *Unagi ni kansuru joho, unagi no hyoji nit tsuite* (Information about eels: labelling for eel)

<http://www.jfa.maff.go.jp/j/saibai/unagi.html>

Source: Fisheries Agency: *Nihon unagi (Anguilla japonica) no hyoji nit tsuite* (Labeling for Japanese eel: *Anguilla japonica*)

<http://www.jfa.maff.go.jp/j/saibai/pdf/hyouji.pdf>

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