



Photo/ RYU UCHIYAMA

Current Situation of Eel Stock Management and Trade

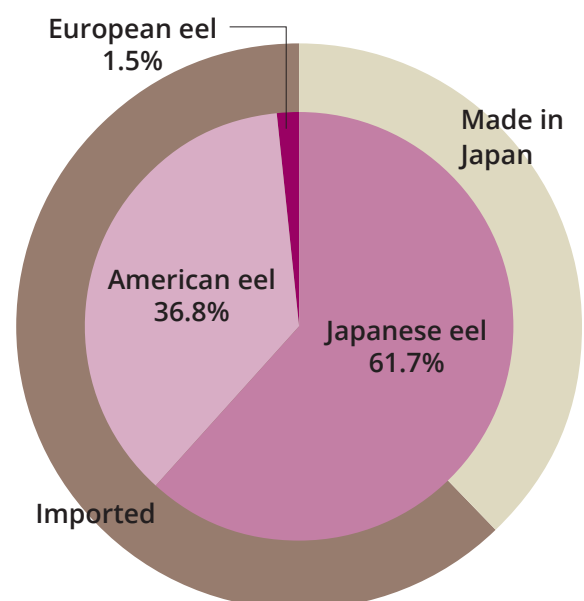
Eels are consumed all over the world, and many species are facing serious population declines. The American eel, European eel, and Japanese eel are all listed as threatened species, yet illegal, unreported, and unregulated (IUU) fishing and illicit trade of these species remain persistent issues. As one of the world's largest consumers of eels, Japan has a responsibility to ensure responsible practices across harvesting, farming, and distribution. International cooperation among relevant countries and territories is also essential for conservation and sustainable use of these species.

1. Eel distribution and use

Freshwater eels (*Anguilla* spp.) are widely consumed across the world. Most of the eels we eat are raised in aquaculture from wild-caught juveniles, known as glass eels. As artificial breeding¹ of eels is not yet commercially viable, all eels currently consumed come from wild populations. Of the 16 recognized *Anguilla* species worldwide, many species have experienced population declines. In particular, the European eel has been classified as Critically Endangered (CR) on the IUCN Red List of Threatened Species—the category for species at the highest risk of extinction in the wild—while the Japanese eel and American eel have been classified as Endangered (EN).

East Asia, especially Japan, plays a vital role in the sustainable use of eel resources, as the region accounts for a significant portion of eel farming and consumption. A 2024 DNA analysis of 133 broiled eels (*kabayaki*) sold at retail outlets in Japan found that approximately 60% were Japanese eels and 40% were American eels. All 51 domestically produced samples were identified as Japanese eels, while more than half of the imports (82 samples, all from China) were American eels, with a small number of European eel samples also identified.

Figure 1: Eel species consumed in Japan, by percentage



Source: Shiraishi et al. 2025²

2. Japanese Eel: Management and Key Issues

In Japan, permits and reporting are required for eel farming, as well as the capture of glass eels for aquaculture. However, a clear gap exists between the actual and the reported volumes of glass eel catches. This unreported catch is seen as a major concern. Although unreported volumes are estimated to have declined in recent years, they have still ranged from 1.5 to 9.6 tonnes per fishing season over the past decade. These figures account for between 10 % and 52 % of the total glass eel input for farming (i.e. the total weight of glass eels used in farming). Unreported catch is believed to result from poaching and underreporting of catch volumes.

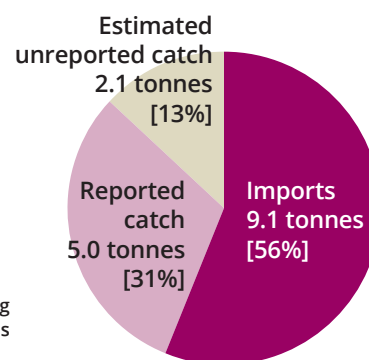
As domestic catch alone is not enough to meet the demand for glass eels needed for farming, glass eels are imported into Japan every year. According to data from the Fisheries Agency, import volumes over the past decade have ranged from 3 to 11.5 tonnes per fishing season, accounting for between 16 % and 76 % of the total glass eel input for farming. Notably, the majority of these imports come from Hong Kong, where no glass eel fishery exists. There are concerns that the glass eels may have been smuggled out of Taiwan and China, where they are originally from, and subsequently imported into Japan as products of Hong Kong.

Following amendments to the Fishery Act, penalties for poaching glass eels were strengthened in December 2023. Unauthorized capture of glass eels is now punishable by up to three years of imprisonment or a fine of up to JPY 30 million. In addition, new regulations pertaining to the distribution of glass eels will take effect in December 2025 under the Act on Ensuring the Proper Domestic Distribution and Importation of Specified Aquatic Animals and Plants (hereafter, the Aquatic Animals and Plants Proper Distribution Act). Under this Act, the transmission of information such as catch identification numbers will become mandatory in order to ensure the traceability of glass eels caught within Japan, from the point of capture to their stocking into aquaculture

Figure 2 : Breakdown of Japanese eel input for farming in Japan (2023 - 2024)

The estimated unreported catch is calculated by subtracting the volumes of imported glass eels and the reported catch from the total amount of live eel fry input for farming as reported by domestic eel farms. Imports for this season totaled 9.1 tonnes, of which 8.6 tonnes were from Hong Kong.

Source: Situation concerning eels and measures to address it (Fisheries Agency of Japan)



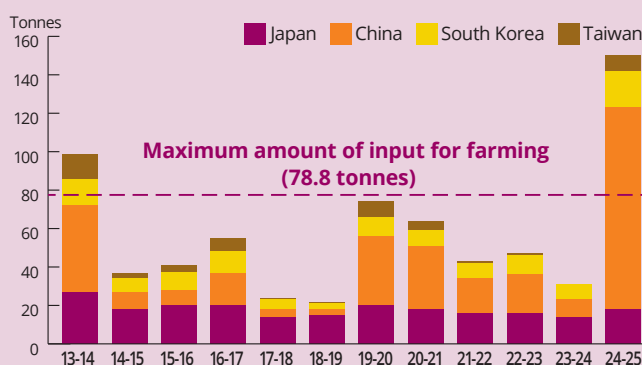
ponds. This is expected to improve transparency in domestic distribution of glass eels. However, glass eels imported from overseas will not be subject to the regulations under this Act.

The Japanese eel is a shared resource in East Asia, including Japan, and cooperation between countries and territories within the species' natural range is essential for effective stock management. Japan, China, South Korea and Taiwan hold meetings known as “Informal Consultation” with the aim of conserving and managing eel stocks internationally. Within this framework, from the 2014–2015 fishing season onwards, the participants agreed to make the utmost efforts to restrict the initial input of glass eels for farming [treated as equivalent to catch volume]. The limit was set at 78.8 tonnes for the Japanese eel, equivalent to 80 % of the volume from the 2013 - 2014 season, and is regarded as a collective upper threshold for East Asia. After the upper limit was established, reported glass eel catches remained at relatively low levels and did not exceed the threshold. According to an industry newspaper, however, more than 150 tonnes of glass eels were reportedly put into farms across East Asia for the 2024 - 2025 fishing season³. This indicates that the glass eel input limit may not be functioning adequately.

What is the limit on the input for farming?

In Japan and other parts of East Asia, the management of juvenile eels—known as glass eels—used for eel farming is based on the limit on the amount of input for farming, rather than catch amount. This approach reflects the fact that glass eels are rarely consumed directly in the region, and instead are almost exclusively used for eel farming. Therefore, the idea is that by managing the amount of eels going into farms— i.e., the input for farming—the catch volume can be indirectly controlled. Since the East Asia-wide limit on Japanese eel input for farming was established at 78.8 tonnes in 2014, reported input volumes remained at around half that level for several years. However, the situation changed drastically in the 2024 - 2025 fishing season, which saw an abundant catch, and media reports indicated that the amount of eels input for farming had greatly exceeded the limit.

Figure 3 : Changes to eel input for farming in East Asia



Data up to the 2023 - 2024 fishing season are from the Informal Consultation documents, while the latest figures for the 2024 - 2025 fishing season are provisional based on Nihon Yoshoku Shimibun, Issue # 1843.

Source: Joint press release⁴, Nihon Yoshoku Shimibun Issue #1843

3. American Eel: Management and Key Issues

American eels are born in the Sargasso Sea in the Atlantic Ocean, and their primary continental distribution extends along the east coast from Canada in the north to the Caribbean Sea in the south. In North America, eels have been used by indigenous peoples and both yellow and silver eels have also been exported to Europe. Declining catches of Japanese glass eels in the early 2010s, combined with trade restrictions on European eels under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), prompted a shift in glass eel demand in East Asia towards other species—most notably the American eel.

Rising demand for American eels led to a sharp increase in prices and a surge in illegal activity in the United States. In response to rampant poaching and trafficking, the US government launched “Operation Broken Glass”, resulting in the arrest of glass eel traffickers and the seizure of illegally traded eels⁵. Subsequently, the state of Maine, where glass eels are mainly caught in the United States, introduced stricter regulations, including a more rigorous licensing system, mandatory electronic transactions, a ban on cash payments, and verification procedures for transporting eels out of state. These measures appear to have been effective in reducing poaching and illegal trade.

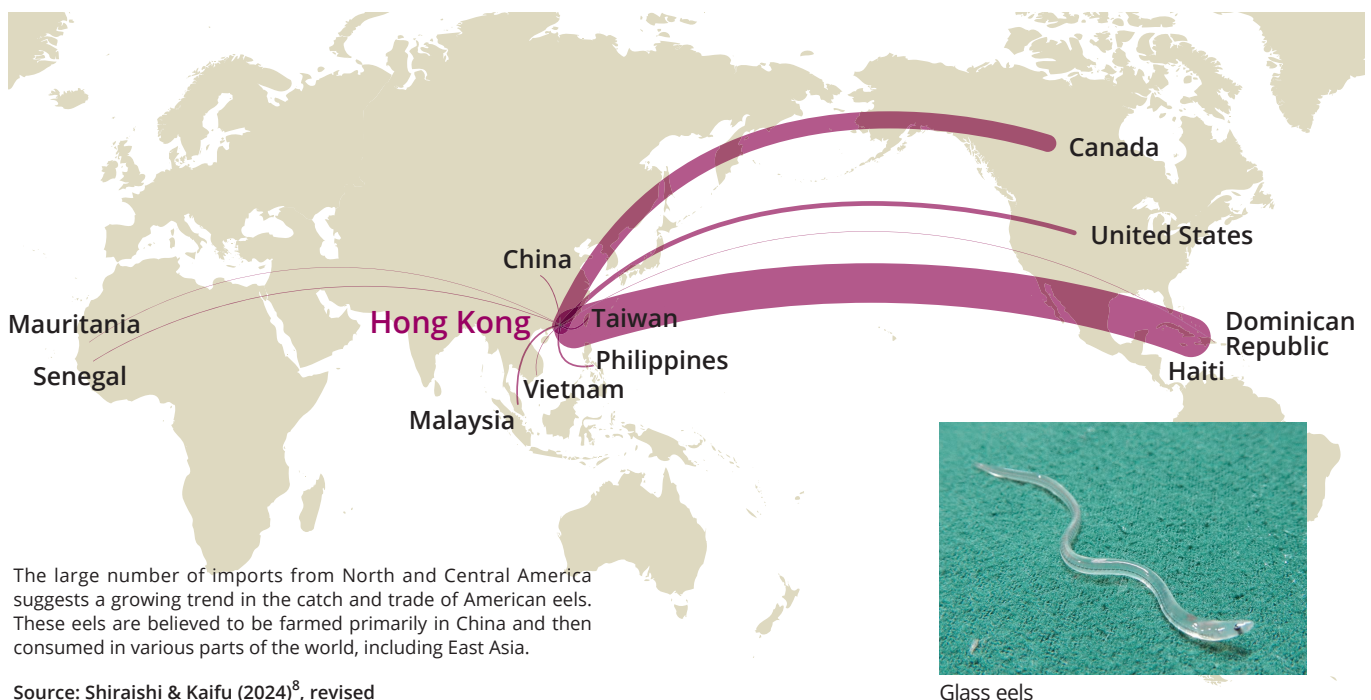
In contrast, Canada has seen a sharp increase in illegal fishing since around 2020, drawing growing public concern. Although Canada's Total Allowable Catch for elver (glass eels) has been set at approximately 10 tonnes, about 43 tonnes of live eel fry were imported from Canada to Hong Kong in 2022. In response to growing illegal activity, no

elver fishing licences were issued for the 2024 season⁶. Nevertheless, approximately 42 tonnes of live eel fry were reportedly imported from Canada to Hong Kong in the same year. While this figure may include eels harvested in Caribbean nations, seizures of glass eels have also been reported within Canada, suggesting that some of these may have been poached or illegally exported. In 2025, a new Canadian law came into force, requiring permits not only for fishing, but also for the possession and export of glass eels. However, close monitoring remains essential to ensure progress in Canada's management of eel fishery and trade.

Rising demand for American eels in aquaculture has prompted glass eel catch and exports in Caribbean countries such as Haiti, the Dominican Republic and Cuba, where such activity had previously not taken place. Many of these eels are exported via North America, and some are imported into East Asia via Hong Kong, labeled as originating from “the United States” or “Canada”. As a result, the exact volume and origin of exports have become increasingly difficult to verify. According to import statistics in East Asia, approximately 100 tonnes of live eel fry were imported to Hong Kong from Haiti in 2022. However, the actual situation remains unclear, partly due to Haiti's political instability. In January 2025, a briefing to the UN Security Council on the situation in Haiti reported possible links between eel trafficking and money laundering related to drug profits⁷.

Juvenile American eels caught in North and Central America are often farmed in China, typically traded via Hong Kong. American eels sold in Japanese retail outlets are usually farmed in China, then imported and distributed in Japan either as live eels or processed products.

Figure 4 : Source of juvenile eel imports to Hong Kong (2022)



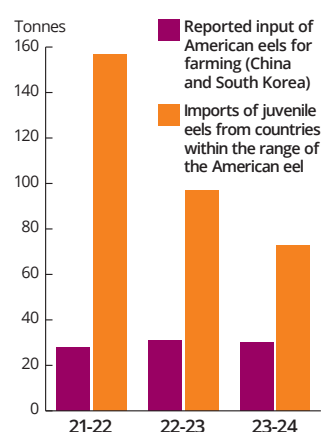
4. State of the Farming of Other Eel Species in East Asia

With regard to eel seed⁹ input into aquaculture ponds for eel species other than the Japanese eel (hereafter, other eel species), Japan, China, South Korea, and Taiwan have annually reaffirmed during their Informal Consultation that they will “take every possible measure not to increase the amount [...] from the level stated in the 2014 Joint Statement”. However, trade statistics indicate that the amount of juvenile eels imported into East Asia exceeds the figures reported through the informal consultation meetings, raising concerns over discrepancies between the reported and actual input amounts (see Figure 5).

Although the export of European eels is banned by the EU, smuggling remains a persistent issue, with ongoing seizures of glass eels and the dismantling of criminal networks. As a result, it is possible that smuggled European eels are being farmed in East Asia. According to the CITES database, European eels imported into Japan from China have originated from North Africa, including Morocco and Egypt, since 2017. However, ensuring full traceability from source countries to consumer countries remains a significant challenge.

Countries and regions in East Asia that farm and consume eels have a responsibility to ensure the sustainable use not only of Japanese eels, which are native to the region, but also of American eels and European eels.

Figure 5: Comparison of the reported input of American eels for farming and imports of juvenile eels



Import volumes are aggregated on a calendar-year basis, while reported input for farming is aggregated from November to October of the following year. Therefore, the two figures are not directly comparable (e.g. import volumes for 2022 are shown as corresponding to 2021-22; 2023 = 2022-23; and 2024 = 2023-24). Imported volumes may also include juvenile eels larger than glass eels. Japan and Taiwan do not report input for farming by species, so their data are not included in the figures for American eel input. However, the reported input for farming of other eel species, including American eels, remained less than 100 kilograms per year in both Japan and Taiwan from 2021-22 to 2023-24.

Source: Joint Press Release⁴ and customs statistics from China, Japan, South Korea, Taiwan, and Hong Kong

5. Specific examples of solutions for conservation and sustainable use of eels

International legal management would be effective for the sustainable use of eel species that migrate across national borders.

- **Implementation of international stock management of eels**
 - Establishing a regional fisheries management organization to conduct international resource management
 - Adoption of precautionary management measures based on scientific evidence, including the results of stock assessments
- **Enhancement of traceability and transparency in eel supply chains, and the elimination of IUU fishing**
 - Enhancing the Aquatic Animals and Plants Proper Distribution Act: adding mature eels to Domestic target species/adding glass eels & mature eels to Imported target species
 - Establishing a shared international legal framework for the elimination of the distribution of seafood originating from IUU fishing in cooperation with the EU, the United States, and other countries
 - Establishing Full-chain Traceability across the entire chain, in line with international standards such as GDST

Footnotes and cited works

1. “Artificial breeding” refers to a method of producing juveniles in captivity for use in aquaculture. While artificial breeding of eels has been successful at the laboratory level, it has not yet been applied at an industrial scale as of June 2025.
2. Shiraishi H, Han YS, Kaifu K (2025) Eel consumption in Japan: insights from genetic species identification and trade data. Fisheries Science
3. Nihon Yoshoku Shimbun Issue #1843 (May 10, 2025) reported that glass eel input was estimated 150 tonnes or more in total, however, a report in the Issue # 1846 (Jun 15, 2025) revised the figure downward to 132.2 tonnes.
4. Joint press release, “The Seventeenth Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species” https://www.maff.go.jp/j/pr/event/attach/pdf/kaigi_release_2406-24.pdf
5. <https://www.justice.gov/archives/opa/pr/maine-men-sentenced-illegally-trafficking-american-eels>
6. Canada Gazette, Part I, Volume 158, Number 26: Possession and Export of Elvers Regulations <https://gazette.gc.ca/rp-pr/p1/2024/2024-06-29/html/reg6-eng.html>
7. UN Security Council Briefing on the Situation in Haiti <https://www.unodc.org/unodc/en/speeches/2025/220125-un-security-council-briefing-haiti.html>
8. Shiraishi H, Kaifu K (2024) Early warning of an upsurge in international trade in the American Eel. Marine Policy, 159, 105938
9. “Eel seeds” in this context refers to juvenile eels used for aquaculture. In eel farming, this typically means glass eels, though in some cases, larger juvenile eels may also be included.

Inquiry contact

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