News report on the catch of glass eels (eel larvae) and its import
Yasuhiro SANADA (Visiting Associate Professor, Waseda University)
April 7, 2018

News report of ‘record-setting bad catch of glass eels’ of this open season

<table>
<thead>
<tr>
<th>PRODUCTION VOLUME OF EELS IN 2016 (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others,</td>
</tr>
<tr>
<td>5,168</td>
</tr>
<tr>
<td>Kochi, 267</td>
</tr>
<tr>
<td>Tokushima, 301</td>
</tr>
<tr>
<td>Mie, 306</td>
</tr>
<tr>
<td>Shizuoka, 1,654</td>
</tr>
<tr>
<td>Miyazaki, 3,255</td>
</tr>
<tr>
<td>Kagoshima, 7,990</td>
</tr>
<tr>
<td>Aichi, 4,742</td>
</tr>
</tbody>
</table>

Source: Production of eels by prefecture ‘Union of Eel Farmers Cooperatives of Japan

In Japan aquaculture of eels is actively practiced in Kagoshima, Aichi, Miyazaki and Shizuoka, as shown in the figure above, and in these areas glass eels (eel larvae) are also caught.

The fishing season for glass eels of this year was opened in November 2017, and newspapers reported the record setting bad catch; as of mid-January 2018 internal and external catch remained 1% compared with a year earlier (Mainichi Shimbun: January 15, 2018, Nihon Keizai Shimbun: January 17, 2018, Yomiuri Shimbun: January 22, 2018, Minami Nippon Shimbun: January 15, 2018).

After entering in March, it was reported that the catch status was recovering. For example in Shizuoka Prefecture, whose open season is from December 1, 2017 to April 30, 2018 and the catch allowance is 1,775kg, as of January 20, the catch was 16.5kg
which is less than 1% of the allowance and 2% of a year earlier (Minato Shimbun February 2, 2018), whereas the catch from March 1 to 20 was 360kg, which exceeded the average catch of March 300kg, and total catch until March 20 was 516kg (Minato Shimbun April 5, 2018).

In Kochi Prefecture whose open season was from December 16, 2017 to March 5, 2018 and the catch ceiling is 350kg, as of February 26 the catch was 9.5kg which is less than 3% of the catch ceiling and seen as a drastic poor catch (Nihon Keizai Shimbun February 28, 2018), but after the open season was prolonged until March 20, it was reported that the total catch calculated by Kochi Prefecture reached 121.9kg (Kochi Shimbun April 7, 2018).

*Catch of Shizuoka is until March 20, and that of Aichi is until the end of February, therefore it may increase after those dates.

** The source of catch ceiling and catch in the above figure is as follows,
Minato Shimbun, February 2, 2018 (catch ceiling in the 2017 season), Chunichi Shimbun, January 11, 2018 (catch in the 2016 season), Minato Shimbun, April 5, 2018 (catch in the 2017 season), Minato Shimbun March 30,2018 (catch ceiling and catch in the 2017 season, until the end of February 2018), Nihonkeizai Shimbun February 28,2018 (catch ceiling in the 2017 season and catch in the 2016 season), Koch Shimbun April 7, 2018 (catch in the 2017 season), Minato Shimbun April 2, 2018 (catch ceiling and catch in the 2017 season), Miyazaki Nichi Nichi Shimbun March 22, 2018 (catch in the 2016 season), Minato Shimbun April 9, 2018 (catch ceiling and catch in the 2017 season), Minaminihon Shimbun April 6, 2018 (catch in the 2016 and 2017 seasons).
The data of catch of Aichi in the 2016 season was not obtained by author, which does not mean there was no catch.

However, accumulated total catch until March 20 in Shizuoka Prefecture decreased 70% compared with the same period of a year earlier (Minato Shimbun April 5, 2018), and as for Kochi Prefecture the catch was less than 50% of a year earlier, which was 35% of the catch ceiling (Figure above). In Miyazaki Prefecture whose catch ceiling of 500kg, the catch of this season from December 11, 2017 to March 25, 2018 was 99.4kg, which is 80% less than the same period of last year, and the lowest catch since the statistics has been maintained in 1994 (Minato Shimbun April 2, 2018). In Kagoshima Prefecture where the season for glass eels was closed on March 31, the catch was 192.2kg which is almost 10% of the allowance of 1,883kg, is approximately 33% of the catch of last season (577.7kg), and is the second lowest catch after the catch of 2012, 149kg (Minato Shimbun April 9, Minami Nihon Shimbun April 6, 2018).

Besides, in Hiroshima Prefecture whose open season has not finished yet (from February 1 to April 30, 2018), fisheries cooperatives of Ashidakawa in Fukui City and an eel farmer of Kure City, both of who are admitted to capture glass eels, caught 40% and less than 10% of last year’s catch consecutively (Chugoku Shimbun March 25, 2018). In Aichi Prefecture whose open season is from December 16, 2017 to April 30, 2018 and whose catch ceiling is 2,000kg, the catch until the end of February was 24.2kg, which is 5% of the same period of a previous year (Minato Shimbun March 30, 2018). According to Fisheries Agency of Japan, glass eels, captured in Japan or captured overseas and imported, put into aquaculture ponds until the end of March was 8.8t, which is much less than that of the same period of last year (18.6t), which means that ‘the catch of glass eels is weak in all east Asian regions including Japan, and the catch volume is decreasing’ (‘Status of eels and measures to take’ Fisheries Agency, April 2018, page 4).

In summary, it could be concluded that as a whole, at the present moment, the catch is decreasing drastically compared with the previous year, and some areas experienced record setting bad catch despite of the regions where the catch increased in March.

**Import of glass eels from Hong Kong strongly suspected to be smuggled from Chinese Taipei**

Japan’s eel aquaculture depends partly on imported glass eels as domestic catch of glass
eels cannot cover the demand for input into aquaculture ponds. For example, 6.1t out of 19.7t glass eels put into aquaculture ponds in 2016 was imported (approximately 30%) (‘Status of eels and measures to take’ Fisheries Agency, April 2018, p4).

The figure above shows the volume of imports of glass eels by countries and it is clear that majority of import is from Hong Kong. For instance, 7,832kg, approximately 84%, out of 9,373kg of the total import in 2016 was from Hong Kong. However, there are hardly any rivers which eels run in Hong Kong, therefore almost all glass eels from Hong Kong are considered to be imported from outside of Hong Kong then exported to Japan.

In addition, shown in the figure above, import from Hong Kong increased drastically after 2007, when Chinese Taipei, former provider of glass eels, prohibited its export in principle. From this, it is strongly suspected that glass eels exported from Hong Kong to Japan could mostly be illegally exported from Chinese Taipei to Hong Kong. Even though it is a well-known fact among stake holders that most of glass eels from Hong Kong originally come from Chinese Taipei, authorities of both Hong Kong and Japan have never taken measures to prevent smuggled glass eels, and WWF pointed out in their report that

Source: Foreign trade statistics of Ministry of Finance
among all Japanese imported fisheries products, eels have the highest risk of being illegal, unreported or unregulated (IUU) (WWF Japan, “IUU Fishing Risk in and around Japan: Final Report,” May 2017).

![Graph showing import volume of glass eels (kg)](image)

Source: Foreign trade statistics of Ministry of Finance

The figure above shows import volume of glass eels of the 2017 season. Except for import from the Philippines, which is presumed to be Anguilla bicolor, all are imported from Hong Kong.

**Necessity of domestic and international regulations**

Besides record-setting poor catch of glass eels in certain areas, it was reported that those captured in Japan in the 2016 season from November 2016 to April 2017 had included 45.45% of eels which were suspected to be smuggled (Shizuoka Shimbun June 14, 2017), thus IUU fishing is pervasive.

These illegal activities are often intermediated by anti-social forces. For example, three gang members were found guilty for fish poaching, violating Prefectural fisheries adjustment regulations and sentenced to 5 months in prison with 3 years suspension of sentence by Kochi District Court, and a top official of Kochi District Public Prosecutors said ‘It was proved that the fish poaching is a money source of gang groups’. (Asahi
Shimbun, January 11, 2018) There was a testimony by a person interested “Without the yakuza, they would never fill the eel ponds”*, and it can be said that fish poaching and illegal trade are pervasive to remarkably bad level in Japan where there is no system of traceability. Considering the specialist’s point that “if we consider Allee effect, population of Japanese eel might decrease to extinction, or might be already decreasing”, as a result of the bad catch of glass eels of this season, it is necessary to significantly strengthen the regulations and penal rules including provisional total ban of domestic capture. In contrast, regulations were eased by prolongation of open season of glass eels in Kochi and Kagoshima due to bad catches (Kochi Shimbun February 28, 2018, Minato Shimbun March 13, 2018), which can be said to be a terminal status.


** Kenzo Kaifu, (associate professor at Chuo University and a member of the IUCN Anguillid Eel Specialist Group), ‘Decrease of catch of glass eels in the 2018 season. No.1 ‘Decrease of population of Japanese eel –Precautionary approach is the base, important view point is Allee effect’, January 29, 2018

Eels should be listed in Appendix II of CITES by following reasons:
- Internationally there is a lack of regional framework to have legal binding force to control eels among related countries,
- Catch volume is drastically decreasing,
- Precautionary approaches such as “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” (The Rio Declaration, Principle 15), and “The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment.” (FAO Code of Conduct for Responsible Fisheries 6.5)
The catch of yellow- and silver-phase eels from Japan’s freshwater (Ministry of Agriculture, Forestry and Fisheries (MAFF ‘Annual Report of the production statistics of fishery and aquaculture industry’))

Cited in ‘Eels in Japan; Habitat status, aquaculture and trade in Japan’ JWCS 2p

The data on Japanese eel is limited to the volume of catch, and according to the data on the ‘Annual report of the production statistics of fishery and aquaculture industry’ of Ministry of Agriculture, Forestry and Fisheries, the catch of yellow- and silver-phase eels from Japan’s freshwater was approximately 3000t in 1960s, but decreased as small as 68t in 2016 (figure above).

For the proposal of inclusion of European eel in Appendix II, FAO Expert Advisory Panel considered that a decline to 15 to 30% meets the criteria of CITES Conf.9.24 Annex 2a A which regulates criteria for amendment of Appendix I and II. If the glass eel recruitment from 1950 to 1980, or 1970 to 1980 is used as a historical baseline, it was determined that the species declined 9 to 19% from this baseline and met the criteria of CITES Conf.9.24 Annex 2a A*. As for Japanese eel, its catch declined to less than 3% and it is largely lower than the baseline of ’15 to 30%’.

It is true that the volume of catch does not reflect the resource tendency accurately. By the following reasons, however, Japanese eel meets criteria of inclusion in CITES Appendix II:

---

![Figure 2: Annual eel catch from freshwater (tonnes)](image-url)
Available data is limited to the volume of catch.

In 2016 Mobula japonica was included in CITES Appendix II based on the data of catch which was used by FAO expert to judge if it meets criteria**, and the proposition as adopted in COP.

Precautionary approach regulated in Conf.9.24 para. 2


Original (Japanese)  http://y-sanada.blog.so-net.ne.jp/2018-04-07