出國報告(出國類別：開會)

出席第 16 屆鰻魚資源養護與管理國際合作非正式會議

服務機關：行政院農業委員會漁業署

姓名職稱：陳文深組長、鄭又華科長及劉溫馨技士

派赴國家：日本東京

出國期間：112 年 7 月 25 日至 7 月 29 日

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摘　要

日本鰻是台灣重要高經濟水產養殖魚種，捕撈鰻苗亦是臺灣沿海漁民冬季重要傳統產業，然而養鰻產業所需之鰻苗皆來自野生捕撈，近年東亞地區鰻苗捕獲量頻創新低，目前鰻苗仍無法以人工繁殖方式量產，嚴重影響整個東亞的鰻魚產業。國際亦高度關切鰻魚資源量問題，其中國際自然保護聯盟（IUCN）已於103年將日本鰻列入紅皮書中的「瀕危物種」，歐盟已於105年9月-10月的華盛頓公約(CITES)第17屆締約國大會提案加強調查鰻魚資源量及貿易情形，迄今雖未提案列入附錄二，但未來仍未排除提案列入可能性。

鑑於國際對於鰻苗資源管理日益重視，爰自2012年起，臺灣、日本、中國大陸等經濟體業於APEC架構下交換彼此鰻魚資源管理之情報，迄今已召開15次「鰻魚資源養護與管理國際合作非正式會議」(以下稱鰻魚國際非正式會議)，並於第7次會議時由臺灣、日本、中國大陸及韓國共同發表「聯合聲明」(Joint Statement)，共同推動鰻魚放養量管控等管理措施，並籌組「永續鰻魚養殖聯盟（ASEA）」，強化落實推動鰻魚產業的自主管理。另各國於 2021 年第 14 屆非正式會議中與會各國同意召開日本鰻及其他鰻科學家會議(下稱科學家會議)，廣邀各方科學家討論東亞地區日本鰻資源養護與管理與研究現況，並以科學根據為基礎，提供第16屆鰻魚國際非正式會議相關資源養護管理建議，作為今後東亞各國合作方向。

本次第16次鰻魚國際非正式會議於112年7月26日至27日假日本東京舉行，計有南韓、日本、中國大陸及我國等四個經濟體出席，我國由本署陳文深組長率署內同仁及中華民國對外漁業合作發展協會人員出席，會議由日本農林水產省顧問森下丈二擔任主席，討論情形如下：

一、首揭由日方報告本年5月29日至30日於日本長野縣舉辦之第2次日本鰻及其他鰻科學家會議總結。

二、再由各方檢視各國鰻魚（含鰻苗）之捕撈、養殖、貿易等相關統計數據，其中日方請韓方說明修正2012~2013年其他鰻放養資料原因。

三、審視各國目前採取之鰻魚資源保護管理措施，韓方提出修正裁罰部分；中方針對 2022 年起採取之長江十年禁漁措施進行細節說明。

四、日方報告有關東北亞地區投入鰻線（苗）入池量管理行動之有效性，並回顧 2014 年發表之聯合聲明，再次強調管理放養量對日本鰻及其他鰻種資源養護與管理之有效性。惟中方提出資源養護管理措施應包含捕撈、放養及進出口之管理，不應僅限於放養量管理。

五、與會成員確認 2023-2024 年漁期日本鰻及其他鰻放養量上限。

六、日方摘述有關去(2022)年於巴拿馬舉行之第 19 屆締約國大會針對真鯊科列入附錄二管理之決議，並考量歐洲鰻於 2017 年被列入附錄二管理，鰻鱺屬可能於次屆締約國大會中被提案；並說明日本依據水產流通適正化法針對鰻魚採取漁獲證明書制度（Catch Documentation scheme, CDS）；另提議建立具法律約束力架，並行意見交換。

七、日方提議由該國續辦第 3 次日本鰻及其他鰻科學家會議及第 17 屆鰻魚資源養護與管理國際合作非正式會議，地點可能於東京或其他產鰻縣市，確切會議時間及地點將由臨時秘書處提供。

八、各方同意聯合秘書處說明之繳交會議資料時程。

九、各方同意發布聯合新聞稿（Joint Press Release），並附有鰻線捕撈及放養，以及各階段鰻魚貿易統計文件。日本水產廳於 7 月 27 日晚間已將聯合新聞稿於其官網發表。

十、中方另外強調鰻魚洄游追蹤對於其他相關鰻種保護與管理之重要性，並建議於科學家會議第 2 任務分組中以聯合研究形式加強鰻魚洄游追蹤合作。

關鍵詞：鰻魚資源養護與管理國際合作非正式會議、日本鰻及其他鰻科學家會議

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近年來，鰻苗捕獲量頻創新低，除衝擊東亞鰻魚產業外，亦引發相關國際組織的關切，國際自然保育聯盟（International Union for Conservation of Nature and Natural Resources，以下簡稱：IUCN）已在2014年6月12日正式公佈將日本鰻列入IUCN紅皮書（Red List）之瀕危（Endangered (EN) A2bc）等級，國際專家學者也加強包含日本鰻在內之19種鰻魚之生態資源調查。

有鑑於國際對於鰻苗資源管理日益重視，而臺灣、日本及中國大陸為西太平洋鰻苗資源之主要利用國家，爰自2012年起業於亞太經濟合作（Asia-Pacific Economic Cooperation，以下簡稱APEC）架構下，分別於日本長崎、菲律賓馬尼拉、中國上海、日本福岡、日本東京、日本札幌、中國青島及南韓釜山等地點召開共15次「鰻魚資源養護與管理國際合作非正式會議（The Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species）」（以下簡稱：鰻魚國際非正式會議），共同進行鰻魚資源管理合作事宜，針對包括鰻魚（苗）捕撈與養殖狀況、生態與資源之資訊搜集及科學研究，以及強化資源管理（包括可追溯性之要求）等資訊交流，並各自訂定管理規範或尋求合作管理之模式，以期復育日本鰻資源外，避免日本鰻被列入瀕臨絕種野生動植物國際貿易公約（Convention on International Trade in Endangered Species of Wild Fauna and Flora，以下簡稱：CITES）附錄中進行貿易管制。

為向外界表達東亞各經濟體對鰻魚資源養護與管理的決心，前述經濟體於2014年9月第7次非正式會議共同發表聯合聲明（Joint Statement），該聲明除承認日本鰻鰻線捕撈量已持續下降，此下降已推定係棲息地/環境劣化、海洋變遷及過度捕撈所造成；也承認日本鰻洄游至東亞地區的沿岸海域，為此區域共同利用之資源，日本鰻資源

的養護及管理需要區域性合作；此外，考量日本鰻在鰻線階段供應量的衰減，已導致其他異種鰻引入東亞地區的養殖池，此現象可能對異種鰻資源造成負面影響；另亦關切儘管部分經濟體已採取措施限制鰻線出口，惟似乎仍有大量鰻線持續在中國大陸、日本、韓國及臺灣間進行交易之事實。此外，為因應基於動物委員會持續表示應加強調查鰻鱺屬物種的資源及貿易情形，又鰻魚屬跨界洄游物種，資源養護於管理應持續透過國際合作，並應基於具體科學研究之上，臺灣、日本、中國大陸及韓國自2022年召開第1次「日本鰻及其他鰻科學家會議(The Scientific Meeting on Japanese Eel and Other Relevant Eels)」(以下簡稱：科學家會議)，並邀集各方科學家討論東亞地區日本鰻資源養護與管理與研究現況，並以科學根據為基礎，提供鰻魚國際非正式會議相關資源養護管理建議，作為今後東亞各國合作方向。

為促進鰻魚產業的永續發展，我國、日本、中國大陸及韓國於2023年7月26日至27日在日本東京召開第16次鰻魚非正式會議，檢視鰻魚(苗)捕撈、養殖和貿易數據，交流各國鰻魚資源養護與管理措施、思考鰻魚保護和管理措施及研商未來工作計畫，另共同發布聯合新聞稿，再次重申2014年第7次會議發布之聯合聲明是進一步加強東亞地區合作的基石，並且已關注到CITES第19次會議之決議文，也將依據2023年科學家會議之決議，加強國際科學研究之合作，各方將在APEC海洋漁業工作小組的架構下，持續推動鰻魚資源養護與管理措施及進行相關議題之合作。

貳、會議過程及結果

第16屆鰻魚養護與管理國際合作非正式會議於本（2023）年7月26日至27日假日本東京三田共用會議所舉行，計有南韓、日本、中國及我國等四個經濟體出席；南韓由海洋及漁業部Tae-Hoon Won副組長率團、日本由水產廳生態保全室大森亮室長率團出席、中國由中國水產科學研究院東海水產研究所蔣科技教授，我國由職率團出席。本次會議秘書處由日本水產廳及Global Guardian Trust(一般社團法人自然資源保全協會)共同組成（以下簡稱聯合秘書處），並執行會議安排。

本次會議主席由日本農林水產省顧問森下丈二擔任，開場歡迎各經濟體與會，日本水產廳生態保全室大森亮室長代表地主國開幕致詞，並邀請中國、韓國及我方團長介紹與會團員後致開幕詞。會議討論情形，謹摘要如下：

一、調整本次會議議程：

(一）刪除議程事項七之國內(domestic)。

二、第 2 次日本鰻及其他鰻科學家會議總結報告：

(一）聯合秘書處說明第 2 次日本鰻及其他鰻科學家會議的總結報告，強調修正後的鰻魚統計標準格式，鰻苗部分單位由公噸改為公斤；以及建立科學合作藍圖。各國通過該總結報告。

(二）關於科學會議下成立日本鰻及其他鰻種科學活動及合作研究的任務分組 1 及任務分組 2 的職權範圍（Terms of Reference）草案，經聯合秘書處說明後，任務小組 1 職權範圍新增環境 DNA 及針對其他鰻種收集數據資料。

三、審視各國鰻魚（含鰻苗）之捕撈、養殖和貿易數據：

(一）日本要求韓國澄清，先前該國提供 2012~2013 年的其他鰻放養量為 13.1 公噸，但本次文件（ICJE-16/MD/12）提供資料修正為 13,987 公斤，差異為何，其調整將會影響到韓國其他鰻放養量上限。韓方答詢如下：

1. 韓方：文件（ICJE-16/MD/12）之新數字是準確的，並解釋該數字是在將單位從公噸轉換為公斤時進行更新。

四、鰻魚資源保育措施：

(一）韓國：修正裁罰部分，倘未持有許可從事鰻魚養殖將進行開罰，並請聯合秘書處協助修正。

(二）中國：

1. 透過實施長江十年禁漁，大量的漁船及漁民被要求停止捕撈活動並重新安排。中方另外補充未來將擴大禁漁區，將可增加溯河及降海之鰻魚數量。
2. 我方：請提供上揭禁漁措施詳細書面資料，另該措施是否將整個長江流域及其河口皆納入該措施的範圍？

   中方：整個長江流域（包括洞庭湖等）及河口均為實施禁漁地點，目前正在進行此區域之生物，包括鰻魚之資源調查，以評估該措施之有效性。後續將循序在科學家會議及非正式會議中報告調查結果。
3. 日方：如何在個體戶層面管理日本鰻及其他鰻種之放養量上限？有關長江禁漁措施建議於次屆科學家會議及非正式會議定量其有效性。

   中方：目前境內沒有從上至下的管理，主要係透過監管部門、產業協會、養殖漁民、相關權益關係人持續共同推動放養量管理。為了擴大鰻苗洄游路徑，長江河口禁漁區由原東經 122 度線向東外擴至 122 度 15 分（約 2 千多平方公里範圍，承諾後續提供圖示，已於會後提供資料如附件 14），以分散作業漁船（漁法為錨定小型張網，設置成本 50 萬人民幣）空間，增加了空隙讓鰻線迴游：有一些縣市推動額外措施，如加強管控 2021 年起長江口專項捕撈證停止發放，捕撈漁船許可證核發數量不得超過去年度核發數量，同時在捕撈區

域限制捕撈規模，如浙江限制捕撈量不得著過上年度，上海規定專項捕撈證不能超過上半年，限制作業漁船攜帶網具不能超過 20 組等強化其管理制度及裁罰。無捕撈證擅自捕撈者依法查處，有捕撈證但以非法漁具漁法作業者，撤銷捕撈證，情節嚴重者以刑罰處分，中方進一步表示，調查顯示自禁漁令實施以來部分水生動物資源（如刀魚）有出現恢復跡象。

(三）日本：

1. 報告有關東北亞地區投入鰻線（苗）入池量管理行動之有效性，並回顧 2014 年發表之聯合聲明，再次強調管理放養量對日本鰻及其他鰻種資源養護與管理之有效性。其中提及自 2014 年後，日本、韓國及我方放養量均維持在訂定之放養量上限內，惟中方之其他鰻放養量有高於訂定上限（32 公噸）情形。
2. 全日本持續養鰻機構山本浩二會長發表聲明：日本對鰻線及鰻苗進行嚴格放養量管理，並透過此措施，使鰻魚養殖業者強化對資源管理重要性之認知，希望與會成員了解到設定放養量上限的重要性，即使在鰻苗資源不穩定情況下，透過滾動式調整四國限額，共同維護鰻魚資源及業者的利益至關重要，並敦促與會成員落實鰻苗放養量管理。
3. 中方：日、韓及我臺灣所需之鰻苗主要透過捕撈及進口，但中方捕獲鰻苗的去向為國內使用及出口兩部分，主要出口國為日本及韓國，因此針對放養量管理提出 2 個問題：（1）中國捕撈的鰻線和鰻苗用於國內養殖池或出口到日本和韓國，因此在資源管理上需全方面考量捕撈量、出口及進口三個面向；（2）中國希望了解日本和韓國對鰻線和鰻苗預計需求量，以作為捕撈管理措施訂定之參考依據。

日方及韓方：近年鰻苗資源量不穩並存在波動，難以預估國內對於進口鰻線或鰻苗需求。日方重申 2014 年發表之聯合聲明有關承諾投入放養量上限管理之重要性。

中方：資源養護應含括捕撈、放養及進出口等全面性管理，較具效益。

(四）日、中、韓及我方確認 2023-2024 年漁期日本鰻放養量上量，維持 2014 年聯合聲明提到之前一年度放養量 8 成原則，其他鰻種 2023-2024 年漁期維持第 15 屆非正式會議聯合新聞稿所訂標準。

五、日本鰻及其他鰻種之現況：

（一）日方報告以下三個主題：

1. CITES 的狀況：

(1) 最近一次 COP19 於 2022 年在巴拿馬舉行，分為二種附錄管理，附錄 1 為禁止貿易，附錄 2 則須檢附無危證明始能貿易。鑑於第 19 屆時真鯊科被列入附錄二管理，即使其中水鯊在三大洋之資源健康無虞；另考量歐洲鰻於 2017 年已被列入附錄二管理，歐洲則完全禁止貿易。鰻鱺屬可能會被提案列入附錄管理之下，倘被列入，則所有鰻魚種類貿易均須提出無危害證明（Non-Detriment Finding, NDF）始能貿易。

(2) 韓國、中國及我國皆顧慮日本鰻及其他鰻種可能面臨與水鯊及歐洲鰻相同情況，有必要持續密切關注 CITES，非正式會議成員間的合作是很重要的。

2. 日本將於 2025 年依據水產流通適正化法針對鰻魚採取漁獲證明書制度（Catch Documentation scheme, CDS）：

(1) 我方：請日方於次屆非正式會議中提供漁獲證明書制度細節資訊。

日方：將於次屆非正式會議議程中提供有關 CDS 文件資料，及在適當議程安排針對建立具法律約束力之框架進行意見交換。

3. 日本提議建立正式具法律約束力架構的協商之必要：

(1) 韓方：尚需建立長期科學資料及從長計議。

中方：起草公約、議事規則、鰻種範圍、參與成員認定等龐雜工作尚待長時間磋商及會員間同意。

我方：依據聯合聲明本來就可以討論具拘束力架構，由於沒有任何文件，我方目前所持立場中性，歡迎日方給予進一步資訊以利因應評估。

(2) 韓國、中國及我國等三方就建立新的區域漁業管理組織（RFMO）議題均表示需要進一步考慮，同時表示未來發展日本鰻及其他鰻種之科研工作的重要性。

（二）中方補充說明，於 2018 年至 2019 年分別放流 3,000 尾、2,000 尾鰻魚，並於 2020 年放流 2,000 公斤成鰻及 3,500 尾稚鰻，有機會讓鰻魚產卵者數量增加。

六、訂定次屆科學家會議及非正式會議時間及地點：

日方提議由該國持續籌辦上揭 2 場會議，並預定第 3 次科學家會議於 3~4 月，非正式會議將會舉辦在 5~6 月，地點可能會在東京或其他產鰻縣市，確切會議時間及地點將會由臨時秘書處提供。各方無異議通過。

七、未來工作計畫：

（一）各方同意本(2023)年 10 月底前提交 2022-2023 年捕撈量及入池量最後確認數據，預計在 2023 年 3 月或 4 月於日本東京召開第 3 次日本鰻及其他鰻科學家會議，並於同年 4 月底前提交 2024 年初步數據資料。

（二）我方：謝謝日方提供的資料，讓我們了解各階段的時程，對

於繳交資料的部分，因我方放養時間的關係，入池量數據於4月僅能繳交初步資料，但會在非正式會議前國提供更新資料。

八、完成聯合新聞稿：

（一）日方參考第 15 次會議內容修正後發布聯合新聞稿（Joint Press Release），並解釋中方及韓方修正部分，同時將韓國提出修正該國資源養護及管理措施彙總表作為附件。

（二）我方提出修正，走私緝獲之鰻苗將放流至河川，其中部分鰻苗也供作為科學研究使用。

（三）修正後聯合新聞稿獲與會各方支持通過。與會各方通過之聯合新聞稿內容略以：日本、韓國及我方皆為APEC之經濟體，回顧 2014 年後可持續利用鰻魚物種的一切努力，包括鰻苗入池量限制及建立持續鰻魚養殖聯盟（ASEA），認識到 2014 年第 7 次會議發布之聯合聲明是進一步加強東亞地區合作的基石，並且已關注到 CITES 第 19 次會議之決議文，也注意到 CITES 動物委員會第 32 次會議通過有關鰻魚相關文件，爰各方願意在 APEC 海洋漁業工作小組的架構下，允諾持續推動鰻魚資源養護與管理措施及進行相關議題之合作，並且重申包括以下合作觀點：

1. 各國就日本鰻及其他鰻之資源養護與管理措進行合作如下：
   (1) 審視 2022-2023 年日本鰻玻璃鰻之進、出口及貿易統計數據，並注意與會各方放養量均低於 2014 年聯合聲明訂定之放養量上限。
   (2) 分享鰻鱺屬國際及國內相關資訊。
   (3) 審議並通過第 2 次日本鰻及其他鰻科學家會議總結報告，包含鰻鱺屬科學活動及合作研究藍圖草案及經科學家會議下成立之科學活動及合作研究任務分組 1、任務分組

2。

(4) 分享各方自 2014 年聯合聲明以來採取之資源養護與管理措施資訊如下：

i. 中國：自 2020 年起採取長江十年禁漁措施，同時停止長江禁漁區捕撈許可之核發，並限制鰻苗捕撈努力量；此外為增裕鰻魚資源，進行鰻魚放流措施，以促進鰻魚產業永續發展。

ii. 日本：自 2015 年起鰻魚捕撈採取可制，且依法分配放養量，倘放養量接近上限則停止玻璃鰻捕撈。根據內陸漁業協會在 2018 年作出的決定，為保護鰻魚而禁止捕撈銀鰻的縣數量正在增加。 此外，日本水產廳於 2019 年推動一項計畫，藉以以提高日本鰻從鰻苗到入池的可追溯性，包含資源動向分析及追蹤產卵群。2020 年頒布「水產流通適正化法」，以防止 IUU(Illegal, unreported, unregulated，非法、未報告及不受規範)漁業，並將於 2025 年 12 月納入鰻苗；針對玻璃鰻出口亦需經過審查，以確認其出口對鰻魚資源保育及管理適切性，及是否遵守日本參與之所有國際協議規範。

iii. 韓國：2018 年打造 “鰻魚通道”，以避免人造建物（如河口岸和海堤）阻擋鰻魚的自然遷徙，從而為鰻魚提供更有利生存環境。2023 年將持續該研究，並續致力於發展可能的保護和管理方案。

iv. 我國：我方將賡續推動放養管理、禁漁期等相關資源保護措施。

九、其他事項：

中方強調鰻魚迴游追蹤對於促進日本鰻及其他相關鰻種的保護和

管理的重要性，並建議在科學家第 2 任務分組中以聯合研究的形式加強鰻魚迴游追蹤合作。

十、會外交流情形：

（一）與水產廳森健廳長交流：我團藉歡迎宴場合向日本新任水產廳長官森健致意及感謝日方籌辦鰻魚非正式會議，渠感謝此次會議我方的支持，並表示渠過去負責 WTO 議題，也懷念台日多年合作與澳紐等國奮戰。臺日為鄰國，具有許多共同利益，期待雙方持續合作。

（二）與日本外務省經濟局漁業室藤原稔久主查交流：藤原稔久主查主責日本區域性漁業管理組織之參與工作，關於鰻魚需要建立正式具法律約束力架構的協商，日本外務省尚未有特別或積極的想法，其個人認為明(2024)年應該僅就概念初步交換意見，並不會細談具體架構或公約條文草案，預期磋商期間將相當漫長。

（三）與中國蔣科技教授交流：蔣教授表示次屆非正式會議希望由中國漁政官員率科研單位一同出席。推估來年倘中國漁政官員出席，其立場可能與本次會議不同。另蔣教授表示個人有意爭取下下次（第 18 次）非正式會議在上海舉辦。

（四）與南韓海洋及漁業部 Tae-Hoon Won 副組長交流：該副組長處理包括 IOTC 及 ICCAT 等區域性漁業管理組織業務，對我國相當友善，對於 IOTC 的未來發展，包括與 FAO 之關係，近期集魚器的管理以及黃鰭鮪資源表示憂慮，韓國圍網船隊也許會因此進一步調整作為，另其強調韓國將爭取本年度 ICCAT 大目鮪資源總容許捕獲量增加時，也增加韓國的大目鮪捕獲限額。

（五）與日、中、韓三國代表團成員洽詢有關鰻魚品質問題，均表示尚無科學化數據作為品質之標準，皆以產業經驗及消費者

個人飲食習慣作為評判，難以建立統一標準。近一步洽日本水產廳增殖推進部栽培養殖課內水面漁業振興室生駒潔室長及中井忍課長補佐說明，因日本消費者偏好皮薄、肉質軟糯的口感，且多數消費者喜愛 4-6P 規格，惟我國產鰻魚外皮太厚，所以較不喜愛。

（六）日本水產廳增殖推進部栽培養殖課中井忍課長補佐及全日本持續的養鰻機構清水孝之事務局長私下關切財團法人鰻魚基金會董事長選舉事，表達日方對於現任蔡秋棠董事長的努力表示感謝，日方持續關注選舉動向並確認選舉時間，希望選舉結果仍維持臺日友好，日方俟 7 月 31 日新任基金會董事長確立後才會安排後續相關民間交流。

參、會外參訪

本團於會外期間參訪東京豐洲市場，由東京都中央卸売市場豐洲市場望月 建志課長代理帶領參訪。東京都共有 11 個中央批發市場，其中豐洲市場主要為水產，係全日本最大水產交易市場，匯集大、中、小盤及周邊產業經營者，主要有四大特徵：

一、食品安全:封閉式設施,可根據商品特性對各區域進行溫度控制,並防止外部空氣、蟲類及灰塵進入。

二、節能及環保：透過太陽能發電，雖僅提供少量用電。

三、高效物流：配置周邊停車區及銷售區實現物流順暢。

四、地區合作：周邊產業合作，如公園、千客萬來等。

豐洲市場開設者為東京都，並由該府進行指導及管理工作，並收取租金，東京大約6成水產品由豐洲市場處理，其中鮪魚每日拍賣200尾生鮮鮪魚、1,000尾冷凍鮪魚，並透過盤商自行購買之電動車運輸，而沿近海捕撈漁獲則透過議價直接進行交易。謹就參訪後意見交流摘要如下：

一、宰殺後廢棄物及廢水均集中處理，一般廢棄物做成魚粉，魚油則可能做成營養食品等,而具營養價值廢棄物係由回收業者向業者購買。

二、水電費等經營費用由各攤位自己支付,共用設施及共用區域則依不同使用者由不同組合負責，協議者協會負責零售區域、東京都負責中盤周邊、大盤商協會及組合負責大盤周邊。

三、從築地市場搬遷至豐洲市場後，整體規模縮小，主要受到產地直銷及年輕人離漁的原因，入場比例從6成縮減至4成，造成交易量減少，但因為豐洲市場透過封閉性設施及冷鏈維持室內溫度，品質及價格提高，並盤商及消費者回饋評價高，整體收益反而有增加。有關年輕人離漁，屬生產結構改變，且消費者多數以外食為主，持續透過食魚教育，並結合相關抽獎活動。

肆、心得及建議

茲就會議觀察並檢討參與會議之狀況以及會後發展，研擬建議事項如下：

一、第32次動物委員會雖未向第20次CITES締約國大會提案建議將鰻鱺屬物種列入附錄二貿易管理，仍將持續調查鰻鱺屬物種的資源及貿易情形，鑒於鰻魚屬跨界洄游物種，資源養護於管理應持續透過國際合作，並應基於具體科學研究之上。

二、近年鰻苗捕獲量持續創新低，且持續受到CITES恐將鰻鱺屬列入附錄二之壓力，日方於本年5月29-30日第2次日本鰻及其他鰻科學家會議中提議建立區域性漁業管理組織，且與會科學家亦提出類似建議，本次會議由日方生態保全室大森亮室長於會中提出，惟其建立需建立長期科學資料及長期磋商，中、韓及我方均表示需進一步考慮，日方表示將於次屆會議安排進行意見交換。

三、鑒於國際對於鰻魚資源養護與管理日益重視，且國際趨勢係以科學導向建立相關管理措施，適逢第13屆財團法人台灣區鰻魚發展基金會董事改選，並由農業部水產試驗所葉信明副所長擔任新任董事長，可透由水產試驗所之科學基礎及資源，強化我國資源養護及鰻魚養殖技術，並支持相關鰻魚基礎科學研究，以期提昇我國對鰻魚養殖的資料蒐集和管理能力及國際形象。

四、查近3年各國之平均入池量均未達各國放養量限額，應可適時提出共同削減放養量配額，以向國際社會展現四國鰻魚資源管理的決心，惟現階段因缺乏科學基礎而未達成共識，惟倘刪減配額後，日、韓兩國放養量配額將低於近3年之平均放養量，且本年會議陸方出席後，持續表示應著重捕撈管理，並於會中說明長江十年禁漁之具體措施及成果，與現行之放養量管裡尚無法達成共識；為應CITES及各界關切，四國仍需提出具體措施以解除各方疑慮，

並建議未來應支持各國優先對於鰻魚進行科學研究及資源評估，並以科學數據為基礎，重新評估各國之最適放養量上限。

五、本次出國期間於會外時間參訪東京豐洲市場，OOO表示自築地市場搬遷後，因自產自銷趨勢及年輕人離魚使規模縮小，但因市場冷鏈建置，使產品品質提升，收益反較往年上升，且此2原因屬於產業結構問題，但豐洲市場持續進行食魚教育，除了於市場建置食魚教育教室，並提供200條魚進行抽獎，中獎者將可於現場體驗處理及料理，並帶回家享用，藉此吸引消費者前往。

伍、會議照片

陸、會議文件及參考資料

附件 1

Attachment 02

The Sixteenth Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species (Informal Consultation)

Date: From 26th (Wed) to 27th (Thu) July, 2023
Venue: Tokyo, Japan

Agenda

1. **Opening of the meeting**

2. **Meeting arrangement**

3. **Adoption of Meeting Agenda**

4. **Opening statements**

5. **Main points of the 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels**

6. **Review of the updated Eel Statistics including the season 2022-2023**

7. **Conservation and Management Measures for Eels**

8. **Situation concerning Japanese eel and other relevant eels**

9. **The date and venue of the next Scientific Meeting and Informal Consultation**
   - The 17th Session of the Informal Consultation
   - The 3rd Scientific Meeting.

10. **Revision of the future work plan (2023-2024 season)**
11. **Finalization of the joint press release**

12. **Other matters**

13. **Adoption of summary report**

14. Closing of the meeting

附件 2

Attachment 03

Opening Statement from Chinese Side

Respected Chairman, Good morning everyone, I am Keji Jiang, from East China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences. I am very glad to speak as a representative of China here.

As one of the most important fishery resources in East Asia, the population health of Japanese eel has significant influence on the sustainable development of fishery and ecological integrity in East Asia. The convening of this meeting is an important platform, we will actively support and participate in the agendas and discussions of the meeting.

The Chinese government attaches great importance to ecological and environmental protection and fishery resource management. We have actively promoted the sustainable development, strengthened the formulation and enforcement of laws and regulations, reinforced supervision, and formulated a series of fisheries management policies and measures, including a fishing license system, planning of protected areas, and fishing moratoriums and closed seasons. We have focused on maintaining the health of large-scale ecosystems. For example, China is practicing the protection of the Yangtze River, which covers the Yangtze River basins and tributaries that flow through 19 provinces. Such protection has universal value for fishery resources across East Asia. We also encourage fishery enterprises to strengthen self-regulation and adopt science-based farming and management measures to ensure the sustainability of eel farming. Chinese environmental organizations and civil society groups such as fishery associations are actively involved in eel conservation and management. We advocate public participation, raise the public awareness, and promote the action of all sectors of society to protect the Japanese eel. At the same time, we support and promote scientific research to understand the ecological characteristics, population dynamics and breeding biology of the Japanese eel and provide scientific basis for the development of effective conservation measures.

During the discussion at the meeting, we should be open, inclusive and pragmatic, and fully respect the rights and interests of each party. In addition, we should formulate industry standards for eel farming to ensure sustainability and environmental friendliness in the farming process; we also need to resolutely combat smuggling together and establish a synergistic mechanism for imports and exports to ensure the legal and orderly trade of eels.

Finally, we hope that through joint efforts, we will contribute to the conservation and sustainable development of Japanese eel and other eel species, realize the effective protection and sustainable use of eel resources. Thank you all!

附件 3

Attachment 04

OPENING REMARKS
BY
JAPAN
AT
THE SIXTEENTH MEETING OF THE INFORMAL CONSULTATION ON INTERNATIONAL COOPERATION FOR CONSERVATION AND MANAGEMENT OF JAPANESE EEL STOCK AND OTHER RELEVANT EEL SPECIES OF 26th JULY 2023

It is my great pleasure to be here today to host the 16th Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species. We were able to hold this meeting face to face for the first time in 4 years since 2019. I cordially welcome the representatives of Members of Northeast Asian region to this meeting.

In the long-term, Japanese eel stock remains at a low level, and there is still global concern about the stock status. In such a situation, four Members of the Northeast Asian region who share Japanese eel resource are called upon to take responsible actions to sustainably utilize this valuable aquatic resource.

As you know, Japanese eel is a catadromous species and is considered to be a single stock in the Northeast Asian region, Japan recognizes that the sustainable use of this species is our common goal.

Japan also believes that we cannot realize such goal without mutual cooperation and it is extremely important to strengthen scientific cooperation and collaborative research on Japanese eel among the Members.

We are looking forward to discussing the sustainable use and appropriate management of Japanese eel with participants in this meeting, and sincerely hope that a certain progress will be made toward the establishment of legal framework for the resources management of Japanese eel in the Northeast Asian region.

Thank you again for your attendance and cooperation today.

附件 4

Attachment 05

Mr. Chair,

Distinguished delegations,

Ladies and gentlemen,

First of all, I would like to begin by thanking the government of Japan for hosting *the 16th meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel species* in this incredible city of Tokyo. It truly is wonderful to have an opportunity to visit and stay here. I would also like to thank the Secretariat for their hard work and efforts for arranging and preparing for the meeting and all the participants for coming here for the meeting this year.

As you are all aware, the eel species hold a vast cultural value in the North East Asia, especially for the countries that are present at this venue today. Eels are commonly consumed in the region and greatly enjoyed by the people there, the Koreans included of course. So, it is fortunate for us that we have eels in our waters, and other areas of the planet as well, which has helped make our life more pleasant with their rich, savory flavors.

At the same time, however, there are some voices of concern with regard to the status of the species and need for stricter protection. We all understand the causes for their concern; we all know that they are not entirely out of reason.

In fact, that is why we are gathered together here, to talk and have discussions about how to better manage and conserve the eel species. I believe that there is a clear merit from this consultation, albeit informal though, that would definitely help us achieve our goal.

I can see that progress has been made since the beginning of the informal consultation: we made a Joint Statement in 2014 which was a collective decision by the four countries to voluntarily set limits on the amount of input; and we had two successful meetings for scientific purposes, which enabled us to share our knowledge and researches, with two Task Teams for scientific activities as well. All of these, I believe, are the evidence of progress that we have made under the agenda of this consultation.

We have some important items to discuss during the 16th session of the consultation. Some of them could contribute our long-term future work. So careful and due consideration should be given, and I firmly believe that we can do so by having fruitful discussions for the next two days.

The Republic of Korea appreciates all the efforts other states have made in order to protect and manage the Japanese eels and other relevant eel species, and wishes that our collective efforts will continue into the future.

Thank you.

附件 5

Attachment 06

Opening statement (Taipei)

Dear Chair Mr. Morishita, Ladies and Gentlemen,

It is a pleasure to be here in person after COVID-19. On behalf of my delegation, I will like to extend our gratitude to Japan for hosting this meeting. We greatly appreciate your warm welcome and hospitality.

In line with the Joint Statement in 2014, we remain committed to promoting conservation measures for eel species, including the periodic closure of glass eel fishing, limits on input of eel fry for farming, the enhancement of traceability systems, habitat restoration, and restocking.

Eel management has become an urgent global topic, with its migration extending beyond national borders. We think that effective management measures can only be reached through international cooperation.

Today, we are here to discuss the sustainable use of eel stock, an important resource that draws global attention. We believe that we can find a balance between stock utilization and conservation by sharing experiences and scientific research. We also believe that the goal of sustainable use of eel stock and economic development could be achieved through the joint efforts of industry stakeholders, academics, and managers.

We look forward to further discussion. By exploring innovative ideas together, we hope to contribute to our goal.

May we have fruitful discussions at this meeting. Thank you.

附件 6
Attachment 07

Summary Report of the 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels

Venue: Ueda Tokyu Rei Hotel, Ueda City, Nagano, Japan

Date: May 29-30, 2023

Item 1: Opening of the meeting

1. The co-Chairs of the meeting, Prof. Nobuyuki YAGI (Graduate School of Agricultural and Life Sciences, University of Tokyo) and Prof. Jun AOYAMA (Atmosphere and Ocean Research Institute, University of Tokyo), welcomed participants and declared the opening of the meeting.

2. Mr. Morio Kaneko (Director, Ecosystem of Conservation Office, Fisheries Agency of Japan) delivered an opening address as the host Member of this meeting (Annex 1).

3. A head of delegation of each Member made a self-introduction and introduce members of their delegation (Annex 2).

4. The list of meeting documents is provided in Annex 3.

Item 2: Meeting arrangement

5. The co-secretariat explained the rule of the meeting procedure.

Item 3: Adoption of Agenda

6. The provisional agenda was adopted without any modification (Annex 4).

Item 4: The overview of Japanese eel catch and scientific activities

7. Scientists from each Member (China, Japan, Korea, and Chinese Taipei) reported the overview of Japanese eel catch and scientific activities in their country.

8. China presented the overview of the eel industry, the Japanese eel catch and management, and the related research activities in the country. For the management of Japanese glass eels, he mentioned relevant laws and management actions including the ten-year fishing ban on the Yangtze River (SMJE-2/MD/07).

9. Questions were asked by Japan to China regarding how many licences of glass eel fisheries are issued, how fishery data are collected, and whether eel fishing ban is implemented in rivers other

than the Yangtze River. China answered that the ten-year ban on eel fisheries in Yangtze River is to restrict the number of vessels, nets, and fishing days, and that data are collected by the research institute and the local governments. He also responded that, in other rivers, such as the Yellow River, fishing moratorium is implemented in spring, and it contributes to the management of glass eel fishery. He also indicated that, in coastal areas, fishing moratorium is posed on these areas starting in May each year. Also, he explained that fishing licences are issued by each province, and the total number is controlled by the central government.

10. Another question was asked by Chinese Taipei to China whether there is a plan to survey eel distribution in the Yangtze River, following the implementation of the ten-year fishing ban. China replied that the fisheries supervision office is planning to conduct such a survey.

11. Japan presented long-term data of Japanese eels' annual catch which have been recorded since 1894. He also introduced a set of fisheries-independent data collected from 2019 in five prefectures in Japan to investigate the status of glass eel arrivals during non-fishing seasons (SMJE-2/MD/08).

12. A question was asked by Chinese Taipei to Japan regarding a difference in the reported yellow eel catches between the east and west part of Japan. Japan answered that yellow eel is generally abundant in Chiba and Shizuoka prefectures, and the data represented the eel natural population relatively well.

13. Other questions were asked by China to Japan whether yellow eels are caught for human consumption or farming, and how much progress has been achieved in eel tagging and tracking. Japan responded that yellow eels are traditionally consumed by communities, and that details of the progress of eel tagging and tracking techniques were discussed at the 1st Task Team 2 workshop (SMJE-2/MD/12) and would be presented in the agenda item 5.

14. Korea shared with participants results of the research related to the feeding ecology of Japanese eels using a stable isotope analysis, with a focus on the glass eel (SMJE-2/MD/09).

15. A point was noted by Chinese Taipei regarding a possible difference in the diet between Leptocephalus from the wild and artificial (farmed) eels. Korea answered that there is still a lack of knowledge in the life cycle of eels and feeding ecology of eels in early stages, and therefore more research is necessary to address the point.

16. A question was asked by the co-Chair to Korea whether eels were sampled for examination in Jeju Island. Korea responded that Jeju Island is not a major place for eel catch to the best of his knowledge, but Nakdong and other rivers where sampling was conducted.

17. Another question was asked by China to Korea regarding the diet of leptocephalus. Korea explained that, based on the findings by other studies, leptocephalus mainly consumes marine snows, and that they are close to the trophic level of zooplanktons. He also added that, as they proceed to open sea areas, they start feeding zooplanktons.

18. Chinese Taipei presented its long-term catch of the Japanese glass eels, its scientific research, and conservation issues related to Japanese eels. He showed results of the glass eel catch, explaining that data exhibited a declining trend over time and highlighted the importance of the glass eel management for securing its recruitment (SMJE-2/MD/10).

19. A question was asked by China to Chinese Taipei regarding the best timing of releasing spawners. Chinese Taipei answered that winter is the best timing for releasing silver eels whereas yellow eels can be released any time in the year.

20. A question was asked by Japan to Chinese Taipei regarding the necessity of protecting yellow eels along with glass eels. Chinese Taipei responded that there should be more effort to protect yellow eels. Another question was asked by Japan to Chinese Taipei regarding reasons for changes in the mean total length and the relative abundance of glass eels over time. Chinese Taipei mentioned several reasons for these results including differences in the main season when glass eels migrate to Chinese Taipei.

21. A question was asked by Korea to Chinese Taipei regarding the calculation method of the eel mortality. Chinese Taipei replied that it is a rough estimation, and that more data are required for ensuring accuracy.

22. A question was asked the co-Chair whether there is a difference in the mortality rate among different fishing methods. Chinese Taipei responded that such a difference has not been assessed yet, but there seemed to be different mortality among fishing methods based on his in-situ observation.

Item 5: Report of the intersessional activities

(1)Task Team 1

23. The Task Team 1 leader, Dr. Leanne Faulks, reported activities conducted so far in years 2022 and 2023 including establishment of the team and the online workshop. She also shared main discussion points including data improvements through creating a data format and knowledge gaps including CPUE standard data and fisheries independent data (SMJE-2/MD/11).

24. The Secretariat suggested that some ideas of the needs for improving data collection raised during the workshop 1 can be incorporated to improve the statistical data format. At the same time, he suggested that, if Members wish to incorporate such ideas, on the second day, they need to clarify and agree on common objectives to collect such additional data because complex statistical data format would discourage Members from collecting data.

(2) Task Team 2

25. The Task Term 2 leader, Prof. Hiroshi Hakoyama, reported activities conducted so far in years 2022 and 2023 including research of eel tracking using a satellite pop-up tag, and information exchange regarding surveys of tracking Japanese eels conducted by each Member and potential eel species to be tracked (SMJE-2/MD/12).

26. Several questions related to methods and results of the tracking surveys were made by the co-Chair and Members including what can be evaluated through data of such surveys and whether the task team has consulted tag manufacturers about the development of small tags. The Prof. Hakoyama answered to them accordingly by stating that tracking surveys are useful to identify the eel migration path, that the combined information on the biomass of each region contributes to estimating the extent to which a specific region contributes to eel abundance, and that the task team is working with a tag manufacturer for small-sized tags.

(3) Other matter

27. A question was asked by the co-Chair to the Secretariat regarding whether Members are supposed to authorize reports of the past activities and agree on future activities. The Secretariat answered that the reports may be approved in this agenda item, but that the future activities may be evaluated and approved on the second day of the meeting.

28. The reports of the two task teams were adopted without objection.

Item 6: Emerging Science and practical solutions in the management of Japanese eel resource in the Northeast Asian region

29. Prof. Kasai, as the Invited Expert, presented the emerging techniques to estimate eel distributions and concentrations, with a specific focus on the application of environmental DNA (eDNA) (SMJE-2/MD/13).

30. Several questions were asked by participants including the relations between the number of farmed eels released and the concentration of eDNA, and the relations between the river size and the eDNA concentration. He responded that there seem to be no clear patterns between the number of eels released and the eDNA concentration, and that the river size may not influence the eDNA concentration while it has not been assessed scientifically.

31. Dr. Fukuda, as the Invited Expert, presented a potential method of forecasting glass eel catches based on estimation of larval distribution in and around the North Equatorial Current (NEC) (SMJE-2/MD/14).

32. Several questions were asked by participants including a difference in larval densities between the eddy region and the NEC. He mentioned the ocean current speed, which is slow in the eddy and fast in the NEC, possibly causing a higher larval density in the eddy. One of the participants commented that it would be useful to analyze long-term oceanographic data to further investigate relations between oceanographic conditions and larval densities.

33. Japan presented the effectiveness of actions to restrict initial input of glass eels and eel fry taken from the wild into aquaculture ponds in the farming practice in Northeast Asia (SMJE-2/MD/15).

34. Recalling that the 2014 Joint Statement stipulates that "Members will cooperate on the conservation and management measures (CMMs) of Japanese eel stock and other relevant eel species" and considering that Japanese eels are the single stock in Northeast Asian region, Japan shared its view that it is meaningful to conserve and manage eel stocks based on "a management standard" that are commonly understood as a set of "Merkmals" by all Members of the Informal Consultation. He also highlighted that measures to restrict initial input of glass eel and eel fry into aquaculture ponds become effective as: (1) the cornerstone of the management framework for aquaculture production; (2) efficient and simple CMMs; and (3) transparent CMMs for not only Japanese eels but also for other relevant eels. He concluded the presentation by reiterating that, for the eel industry in the Northeast Asian region, the most effective and efficient CMM is the restriction of initial input of glass eels into aquaculture ponds.

35. Statements were made by the eel association of Japan explaining how much the measure to restrict the input of glass eels into ponds contributes to the conservation and management of Japanese eel

stock, including through raising awareness of benefits of eel management among eel aquaculture farmers.

36. Japan highlighted the importance of collaborative research activities in the Northeast Asian region (SMJE-2/MD/16). In particular, he highlighted the importance of the spatio-temporal fishery data (time-series of catch and CPUE) in understanding stock trends and assessing extinction risk for stock management. He also stated that the restriction of inputs of glass eels into ponds, combined with regional fisheries management and trade transparency efforts, play a critical role in the regional resource management for Japanese eels.

37. China presented its domestic eel resource management policy (SMJE-2/MD/18). He explained that the capture volume of glass eels has been declining over time, leading to enhancement of eel resource management, namely the ten-year ban on glass eel fisheries in the Yangtze River. China concluded its presentation by stressing the importance of maintaining the balance between conservation and utilization and presented China's four target principles: (1) ensuring conservation prioritized; (2) developing the way of rational utilization; (3) enhancing scientific and technical support; and (4) cooperation for the eel fisheries management.

38. Japan made a general comment on China's presentation that it is not sufficient to only regulate fisheries in rivers and estuaries, and that the input of glass eels into aquaculture ponds is necessary as the cornerstone of the management framework for aquaculture production to ensure transparency throughout the whole supply chain, such as glass eel catch, their inputs into aquaculture ponds, processing/distributing/trading of adult eels.

39. Chinese Taipei pointed out that the reported contribution of glass eel catch in the Yangtze River in the total catch (>60%) seems to be overestimated and the actual contribution is around 30%. China responded that this fishing year there were more glass eels coming to the Yangtze River, which is why the percentage of the contribution is higher.

40. Japan asked details of conservation measures for other relevant eel species which China input into their aquaculture ponds. China stated that American eels are managed by controlling their imports.

41. Dr. Cairns, as the Invited Speaker, presented the challenge of assessing the American eel stock (SMJE-2/MD/17). He discussed that effects of anthropogenic impacts (fishing, dams, contaminants) on eel populations could not be assessed due to the lack of available data, and that further data are required for the eel stock assessment. He summarized ongoing attempts to assess the stock status of Anguillid species and examples of substitution for analytic assessments in the

other parts of the world. He recommended continuing to address these threats while developing spatial and population dynamics models and managing eel fisheries based on the existing abundance indices.

42. Several questions were asked by participants including effects of microplastics on American eels and a concern about conservation of American eels in Central and Latin America. Dr. Cairns answered that American eels can potentially be affected by microplastics in their larval stage while noting that there is not sufficient data available to conclude this argument. He also expressed a deep concern that American eels are harvested and exported by many countries such as Haiti where their governance is not sufficient and noted that nonetheless he has a hope because a part of the exports destined to Canada and the United States can be under a stricter control.

Item 7: Situation concerning Japanese eel and other relevant eels

43. Japan presented the situation concerning Japanese eel and other relevant eels in relation to situation concerning commercially exploited aquatic species in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). He also reported the newly introduced Japanese Catch Documentation Scheme (CDS) under the Act on Ensuring the Proper Domestic Distribution and Importation of Specific Aquatic Animals and Plants (SMJE-2/MD/19). Considering these emerging circumstances, he highlighted the importance of starting frank exchange of views among Members about the possibility of introducing a legal framework such as a new regional fisheries management organization (RFMO) for eels.

44. Dr. Cairns supported the proposal of starting discussion and asked about the context of a legal framework being needed, including whether the framework could be an newly established eel-only organization or the existing RFMOs whose mandate is broaden to cover eels. Japan clarified the possible modality of such a new framework by stating that such an RFMO for eel could be an organization similar to the tuna-RFMO with functions to implement conservation and management measures. He also responded that it will take a long time to go through numerous procedures before establishing an RFMO and that we have to go forward step by step with consultation among Members of the Informal Consultation.

Item 8: Revised roadmap of scientific activities/collaboration

45. Dr. Faulks as the leader of Task Team 1 exhibited the draft updated roadmap for scientific activities and collaborative research on Japanese eel and other relevant eels (SMJE-2/MD/20). She mentioned that the collection of fishery-independent data such as eDNA as a new activity added to the draft updated roadmap for Task 1 and Task 2 activities had no substantial changes in its roadmap.

46. The revised roadmap for Task 1 and 2 was adopted with no objection (Annex 5). The co-Chair welcomed Members, if any, to propose additional activities intersessionally.

Item 9: Standard working format for data and information

47. The Secretariat explained the slightly revised standard formats for eel statistic formats which was improved based on the comments made during the workshop of the task team 1 (SMJE-2/MD/21). Major changes are: (1) the unit of measurement with "ton" replaced with "kg" to record weights of glass and kuroko eels more accurately; (2) a new space "Comments by Members" which replaces "Footnotes" section and where Members are, as appropriate, supposed to present additional information that is useful for scientific analysis such as spatial information and protocols for data collection.

48. The revised standard working format was adopted without objection (Annex 6).

Item 10: The date and venue of the next Informal Consultation and Scientific Meeting

49. Japan proposed that it would host the 16th Session of the Informal Consultation on 26 and 27 July 2023 in Tokyo (Annex 7) and the 3rd Scientific Meeting planned to be held between April and May 2024. Also, Japan asked participants to convey its proposals to each authority of Members of the Informal Consultation.

50. Members agreed the proposal on the date and venue of the next Informal Consultation and Scientific Meeting by Japan without objection.

Item 11: Other matters

51. No other matter was raised by Members.

Item 12: Adoption of the summary report of the meeting

52. Members agreed on a suggestion by the co-Chair that the draft summary report would be circulated among participants for their comments after the meeting rather than discussing it in the meeting.

Item 13: Closing of the meeting

53. The co-Chairs, Prof Yagi and Prof. Aoyama, expressed appreciation to all the participants for their useful exchange of information and comments while highlighting the importance of trust-building among Members face to face, and closed the meeting.

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MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES, GOVERNMENT OF JAPAN
1-2-1, Kasumigaseki, Chiyoda-ku, Tokyo 100-8907, Japan

Annex 1

Opening Remarks

Japan

On behalf of Fishery Agency of Japan, I wish to extend a warm welcome to you who have come from all parts of Northeast Asian region to attend the 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels.

Nagano Prefecture as the venue for the 2nd Scientific Meeting is in the center of Japanese main island. Nagano is surrounded by 3000-meter-high mountains such as the Japanese Alps, which hosted the 18th Winter Olympic Games in 1998.

Although there is no ocean in Nagano Prefecture, it is the source of Japan's major rivers such as Chikuma River, Japan's longest first-class river, which flows across the center of Ueda City.

This time, we were able to host the 2nd Scientific Meeting here in Ueda City, Nagano Prefecture, with the cooperation of the Institute of Freshwater Biology of Nagano University. The IFB has Japanese Eel Unit Team, which conducts eel stock survey and assessment projects for Fisheries Agency of Japan. We would like to thank Professor Hakoyama and all the members of IFB for their cooperation.

Using the best scientific information available, which is a ground of the discussion in this meeting, form a basis of effective and efficient conservation and management measures for Japanese eel and other relevant eels.

I hope that this meeting offers an excellent opportunity to share the best scientific information among all participants for the two days and to develop close relationship among scientists and researchers in the Northeast Asia region.

Thank you very much.

Annex 2

The 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels
- Participant List -

【Co-chair】

	Category	Title	First name	SURNAME	Position	Organizaiton	E-mail
1	Co-chair (online)	Prof.	Jun	Aoyama	Professor	Atmosphere and Ocean Research Institute, Tokyo University	aoy@g.ecc.u-tokyo.ac.jp
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【Members/Observers/Interpreters】

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●Japan

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23	Observers	Mr.	Kouji	Yamamoto	Vice-President	All Japan Association for Sustainable Eel Aquaculture Incorporated	
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●Korea

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●Chinese Taipei

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8	Interpreters	Mr.	ChinYaw	Wang	Senior Secretary, Economic Division,	Taipei Economic and Cultural Representative Office in Japan	chinyaw@ms1.fa.gov.tw

【Invited experts/specialists】

	Category	Title	First name (Middle name)	SURNAME	Position	Organizaiton	E-mail

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3	Invited expert	Dr.	Kazuki	Yokouchi	Senior Research Scientist	National Research Institute of Fisheries Science	yokouchi_kazuki56@fra.go.jp
4	Invited expert	Dr.	David K.	Cairns	Scientist Emeritus	Department of Fisheries and Oceans, Canada	David.Cairns@dfo-mpo.ec.ca

Annex 3

List of meeting documents

Document Number	Document Title
SMJE-2/MD/01	Concept Paper on the Scientific Meeting on Japanese Eel and Other Relevant eels
SMJE-2/MD/02	Meeting agenda of the 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels
SMJE-2/MD/03	Annotated agenda of the 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels
SMJE-2/MD/04	Participant List
SMJE-2/MD/05	Basic Rules of Meeting Procedure for the Scientific Meeting
SMJE-2/MD/06	NOTIFICATION TO THE MEETING PARTICIPANTS Ver.0 (including the list of meeting documents)
SMJE-2/MD/07	The Overview of eel industry (China)
SMJE-2/MD/08	The Overview of Japanese Eel catch and scientific activities (Japan)
SMJE-2/MD/09	Applications on Stable isotope analysis for understanding Feeding ecology of Anguilla japonica (Korea)
SMJE-2/MD/10	The Overview of Japanese Eel catch and scientific activities (Chinese Taipei)
SMJE-2/MD/11	Interim report of the intersessional activities- Minutes of Task Team 1 workshop in February 2023
SMJE-2/MD/12	Interim report of the intersessional activities- Minutes of Task Team 2 workshop in February 2023
SMJE-2/MD/13	Emerging techniques- application of environmental DNA
SMJE-2/MD/14	A possibility of forecasting glass-eel catches based on the larval estimator obtained by monitoring surveys in the ocean
SMJE-2/MD/15	Effectiveness of actions to restrict initial input of glass eels and eel fries taken from the wild into aquaculture ponds in the farming practice in North East Asia
SMJE-2/MD/16	New scientific assessment of Japanese eel resources and resource management based on the scientific assessment in Northeast Asian region
SMJE-2/MD/17	The challenge of assessing the American eel stock

SMJE-2/MD/18	Eel resource management in China
SMJE-2/MD/19	Situation concerning Japanese eel and other relevant eels
SMJE-2/MD/20	Revised updated roadmap of scientific activities/collaboration
SMJE-2/MD/21	Standard working format for data and information
SMJE-2/INF/01	Summary Report of the 1st Scientific Meeting on Japanese Eel and Other Relevant Eels
SMJE-2/INF/02	Summary Report of the 15th Meeting of Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species
SMJE-2/INF/03	Joint Statement of the Bureau of Fisheries of People's Republic of China, the Fisheries Agency of Japan, the Ministry of Oceans and Fisheries of the Republic of Korea and the Fisheries Agency of Chinese Taipei on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species
SMJE-2/INF/04	CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES-SC74 Doc. 64.1)
SMJE-2/INF/05	CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES-AC32 Doc. 36)

Annex 4

The 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels

Venue : Ueda Tokyu Rei Hotel, Ueda city, Nagano, Japan
Date: May 29-30, 2023

Agenda

1. **Opening of the meeting**

2. **Meeting arrangement**

3. **Adoption of Agenda**

4. **The overview of Japanese eel catch and scientific activities**

5. **Report of the intersessional activities**
   (1) Task Team 1
   (2) Task Team 2

6. **Emerging Science and practical solutions in the management of Japanese eel resource in the Northeast Asian region**
   (1) Emerging techniques- application of environmental DNA
   Prof. Akihide Kasai
   Division of Marine Bioresource and Environmental Science
   Faculty of Fisheries Sciences, Hokkaido University
   (2) A possibility of forecasting glass-eel catches based on the larval estimator obtained by monitoring surveys in the ocean
   Nobuto Fukuda, PhD, National Research Institute of Fisheries Science
   Kazuki Yokouchi, PhD, National Research Institute of Fisheries Science
   (3) Effectiveness of actions to restrict initial input of glass eels and eel fries taken from the wild into aquaculture ponds in the farming practice in North East Asia
   Morio Kaneko, Fisheries Agency of Japan
   (4) New scientific assessment of Japanese eel resources and resource management based on the scientific assessment in Northeast Asian region
   Prof. Hakoyama, Nagano University, Japan
   (5) The challenge of assessing the American eel stock
   David K. Cairns, Ph.D.
   Scientist Emeritus, Department of Fisheries and Oceans, Canada
   (6) Others
   Eel resource management in China
   Prof. Jianyi LIU
   East China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences

7. **Situation concerning Japanese eel and other relevant eels**

8. **Revised roadmap of scientific activities/collaboration**

9. **Standard working format for data and information**

10. **The date and venue of the next Informal Consultation and Scientific Meeting**
    - The 16th Session of the Informal Consultation
    - The 3rd Scientific Meeting.

11. **Other matters**

12. **Adoption of summary report of the meeting**

13. **Closing of the meeting**

Annex 5

Updated Roadmap for Scientific Activities and Collaborative Research on Japanese Eel and Other Relevant Eels (2023-24)

Prepared by the Task Team leaders with support from the Co-Secretariat

Task Team leaders would like to propose revisions of the two intersessional tasks for the roadmap for scientific activities and collaborative research as below, which were originally identified at the 1st Scientific Meeting on Japanese Eel and Other Relevant Eels and approved by the 15th Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel and Other Relevant Eels.

PURPOSE

1. Task Teams are established under the Scientific Meeting on Japanese Eel and Other Relevant Eels for the efficient implementation of the tasks.

2. The Task Teams aim to promote scientific activities and collaborative research on the Japanese eel to provide available best scientific data and information to the Scientific Meeting.

ACTIVITIES

3. The Task Teams focus on the following activities and research:

Task 1: Develop close relationship among scientists in the Northeast Asia region, and collect and organize long-term time-series data including fishery-independent data such as environmental DNA on Japanese eel and other relevant eels in order to understand and forecast the stock trend of Japanese eel in the Northeast Asian region.

Team Leader: Dr. Leanne Faulks, Researcher/Guest Associate Professor, Nagano University

Task 2: Exchange information on tracking techniques in order to track migration paths of Japanese eels and the other relevant eels from rivers to spawning grounds in Northeast Asia and other regions, and to analyze and evaluate tracking data.

Team Leader: Prof. Hiroshi Hakoyama, Nagano University

4. The roadmap for scientific activities and collaboration research on Japanese eel and other relevant eels is updated as attached.

5. The team leaders lead their task teams and carry out their duties in email correspondence or by hosting virtual meetings.

6. Each country/region Member registers scientists/researchers as team members for the two task teams.

7. Team members works in coordination and cooperation with others to ensure the efficient execution of the team's mission.

8. The Task Teams prepare and present an interim report for each task term in accordance with the new updated Roadmap for Scientific Activities and Collaborative Research on Japanese Eel over the next year.

(Attachment)

Dates	Scientific Meeting/ Informal Consultation/ Task Teams 1 and 2	Works Contents
(*2023*) May	The 2nd scientific meeting	■ Discuss on the interim report of each task team ■ Draft an updated roadmap
July	The 16th meeting of the Informal Consultation	■ Authorize the latest statistics (catch, trade, input, etc) on eels submitted by Members ■ Approve the draft updated roadmap
August	Task Teams 1 and 2	■ Register team members for each task team ■ Determine work plan and role assignments ✓ Task Team 1 - Review the available statistics - Improve collection of fisheries statistics and complementary data - Share and improve knowledge on model analysis - Discuss the potential use of eDNA surveys - Discuss/identify specific indicators/parameters for stock assessments or trend analysis of Japanese eel as the

		single stock in Northeast Asian region - Others ✓ Task Team 2 - Improve migration tracking survey techniques - Discuss field research plan in Northeast Asian region
August-December	Task Teams 1 and 2	■ Collaborative work based on the plan
(2024) January-February	Task Teams 1 and 2	■ Online workshop for the Task Teams 1 and 2 / An interim report for the task
March-April	The 3rd Scientific Meeting	■ Discuss on the interim report of each task team ■ Draft an updated roadmap
May-June	The 17th meeting of the Informal Consultation	■ Authorize the latest statistics (catch, trade, input, etc) on eels submitted by Members ■ Approve the draft updated roadmap

【Revised Standard Working Formats for Eel Statistics (2023)】 Members：XXX Annex 6

Format 1：Data on Catch of Japanese Eel (Data is limited to taken from the wild)

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Catch of glass eel	kg											
Catch of eel fry (kuroko)	kg											
Catch of wild adult eel	kg or tons											

【Notes】:

1. The catch data of Japanese eel are entered by glass eel, eel fry and wild adult eel, respectively.

2. Unit for catch of glass eel and eel fry should be weight in kilograms. Unit for adult eel should be weight in metrc tons.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (catch of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members：

Format 2：Data on Fishing effort on Japanese eel

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Fishing effort on glass eel	number of licences (or fishermans, fishing vessels)											
Fishing effort on eel fry (kuroko)	number of licences (or fishermans, fishing vessels)											
Fishing effort on wild adult eel	number of licences (or fishermans, fishing vessels)											

【Notes】:

1. The data of fishing effort on Japanese eel are entered by glass eel, eel fry and adult eel, respectively.

2. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels.The unit can be chosen in accordance with each domestic legislations.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (fishing effort on glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members：

Format 3：Input of eel seeds (glass eels and eel fry (kuroko)) into aquaculture ponds

Species	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
japonica	kg											
domestic catch	kg											
imports	kg											
Other eel species	kg											
bicolor	kg											
anguilla	kg											
rostrata	kg											
marmorata	kg											
mossambica	kg											
Total	kg											

【Notes】:

1. Inputs of eel seeds (glass eels and eel fry) into aquaculture ponds are entered by japonica and other eel species, respectively
2. The data of japonica are entered by domestical catched seeds and imported seeds, respectively
3. However, eel seeds which transferred by other countries and regions are not included in the data of input of eel seeds.
4. Unit for catch of glass eel and eel fry should be weight in kilograms.
5. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
6. The statistic period of the data related to eel seeds (input of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

○Comments by Members:

Format 4: Aquaculture production

Species	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
japonica	kg or tons											
Other eel species	kg or tons											
bicolor	kg or tons											
anguilla	kg or tons											
rostrata	kg or tons											
marmorata	kg or tons											
mossambica	kg or tons											
Total	kg or tons											

【Notes】:

1. The data of aquaculture production are entered by japonica and other eel species, respectively
2. Unit for aquaculture production should be weight (kilograms or metrc tons) as far as possible.
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. Aquaculture production data should be the calendar year.

○Comments by Members:

Format 5: Other data on aquaculture

Item	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Scale of aquaculture industry	number of aquaculture operators											

【Notes】:

①Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.

②When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

○Comments by Members:

Format 6: Import of eel seeds (glass eels and eel fry)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
japonica	glass eel	kg											
	eel fry (kuroko)	kg											
Total		kg											
Other eel species	glass eel	kg											
	eel fry (kuroko)	kg											
Total		kg											

【Notes】:

1. The data of import of eel seeds (glass eels and eel fry) are entered by japonica and other eel species, respectively
2. The statistic period of the data related to eel seeds (import of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

Format 7: Import of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
japonica	live eel	kg or tons											
	broiled eel	kg or tons											
Other eel species		kg or tons											
		kg or tons											
Total		kg or tons											

【Notes】:

①The data of import of eel and eel products are entered by japonica and other eel species, respectively

②Examples of type/size of import of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.

③When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

④Unit for import of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

Format 8: Export of eel seeds (glass eels and eel fry)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
japonica	glass eel	kg											
	eel fry (kuroko)	kg											
Total		kg											
Other eel species	glass eel	kg											
	eel fry (kuroko)	kg											
Total		kg											

【Notes】:

1. The data of export of eel seeds are entered by japonica and other eel species, respectively
2. The statistic period of the data related to eel seeds (export of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

Format 9: Export of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
japonica	live eel	kg or tons											
	broiled eel	kg or tons											
Other eel species		kg or tons											
		kg or tons											
Total		kg or tons											

【Notes】:

1. The data of export of adult eel and eel products are entered by japonica and other eel species, respectively
2. Examples of type/size of export of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. Unit for export of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

Format 10. Mean value of wight and length of Japanese eel

	Unit	When catching	When inputing into aquaculture ponds	When importing	When exporting
glass eel	weight (g)				
	body length (cm)				
eel fry	weight (g)				
	body length (cm)				
adult eel	weight (g)				
	body length (cm)				

【Notes】:

1. The data of weight and length of Japanese eel into aquaculture ponds are entered by glass eel, eel fry and adult eel, respectively.
2. The data entered can be either mean value or figures in certain ranges (e.g., XX – YYg or cm). If mean value is available, it should be clearly mentioned in the comments by Members that the mean value of weight and length figures are based on biological or administrative standards or figures obtained from industry associations, etc.
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. "Body length" is the length of a fish measured from the tip of the snout to the posterior end of the last vertebra.

○Comments by Members:

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

(* Please fill in data sources and/or methoods to collect or estimate the data entried in from format 1 to format 14 respectively.)

1. Catch of glass eel	
2. Catch of eel fry (kuroko)	
3. Catch of wild adult eel	
4. Fishing effort on glass eel	
5. Fishing effort on eel fry (kuroko)	

6. Fishing effort on wild adult eel	
7. Input of eel seeds into aquaculture ponds	
8. Aquaculture production	
9. Scale of aquaculture industry	
10. Import of eel seeds	
11. Import of eel and eel products	
12. Export of eel seeds	
13. Export of eel and eel products	
14. Mean value of wight and length of Japanese eel	

Annex 7

Draft

The Sixteenth Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species (Informal Consultation)

Date: From 26th (Wed) to 27th (Thu) July, 2023, Tokyo

Agenda

1. Opening of the meeting

2. Meeting arrangement

3. Adoption of Meeting Agenda

4. Issues concerning the 2nd Scientific Meeting on Japanese Eel and Other Relevant Eels

5. Review of input, output (catch and aquaculture), and trade statistics (export/import) of glass/adult eels during the season 2022-2023

6. Domestic conservation and management measures for eels

7. Revision of the future work plan

8. Other matters

9. Finalization of a joint press release

10. The date and venue of the next Scientific Meeting and Informal Consultation
- The 17th Session of the Informal Consultation
- The 3rd Scientific Meeting.

11. Adoption of summary report
- Schedule for circulating a draft summary report of the meeting.

12. Closing of the meeting

附件 7

Attachment 08

Terms of Reference
for Task Team 1 & 2 of Scientific Activities and Collaborative Research on Japanese Eel Established under the Scientific Meeting

The Bureau of Fisheries of People's Republic of China, the Fisheries Agency of Japan, the Ministry of Oceans and Fisheries of the Republic of Korea and the Fisheries Agency of Chinese Taipei (hereinafter referred to as "Members"),

Recalling the Joint Statement of the Bureau of Fisheries of People's Republic of China, the Fisheries Agency of Japan, the Ministry of Oceans and Fisheries of the Republic of Korea and the Fisheries Agency of Chinese Taipei on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species, which was issued in September 2014;

Recognizing the Joint Press Release of the Fourteenth Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species (hereinafter referred to as "Informal Consultation"), which was released in July 2021;

Noting the paragraph 46 of the Summary Report of the 2ndt Scientific Meeting on Japanese Eel and Other Relevant Eels held from 29th (Mon) to 30th (Tue) May, 2023 as well as the Concept Paper on the 2ndt Scientific Meeting on Japanese Eel and Other Relevant Eels (SMJE-2/MD/01) and the rule 7 of the Tentative Basic Rules of Meeting Procedure for the Scientific Meeting (SMJE-2/MD/05);

Have decided the following:

PURPOSE

1. Task Teams are established under the Scientific Meeting on Japanese Eel and Other Relevant Eels for the efficient implementation of the tasks.

2. The Task Teams aim at promoting scientific activities and collaborative research on the Japanese eel to provide the best available scientific data and information to the Scientific Meeting.

TERMS OF REFERENCE

3. The Task Teams focus on the following activities and research:

   (1) Develop close relationship among scientists in Northeast Asian region and collect/organize long-term time-series data, including fishery-independent data such as environmental DNA on Japanese eel and other relevant eels, in order to understand and forecast the stock trend of Japanese eel in the Northeast Asian region (Task Team 1); and

   (2) Exchange information on tracking techniques in order to track migration paths of Japanese eel and other relevant eels from rivers to spawning grounds in Northeast Asia and other regions, and analyze and evaluate tracking data (Task Team 2).

4. Team leaders are nominated for each of the Task Team as follows:

   Task Team 1: Dr. Leanne Faulks, Researcher/Guest Associate Professor, Nagano University; and

   Task Team 2: Prof. Hiroshi Hakoyama, Nagano University.

5. The team leaders lead their task teams and carry out their duties in email correspondence or by hosting virtual meetings.

6. Each Member registers scientists/researchers as team members for the two task teams, respectively.

7. Team members work in coordination and cooperation with others to ensure the efficient execution of the team's mission.

8. The Task Teams prepare and present an interim report for each task term in accordance with the attached Roadmap for Scientific Activities and Collaborative Research on Japanese Eel over the next year.

OTHERS

9. Subject to resource constraints, the Interim Secretariat of the Scientific Meeting shall provide support and guidance to the Task Teams.

10. Insofar as they are applicable, the Tentative Basic Rules of Meeting Procedure for the Scientific Meeting (SMJE-2/MD/05) shall apply mutatis mutandis to the proceedings of the Task Teams.

(Attachment)

Dates	Scientific Meeting/ Informal Consultation/ Task Teams 1 and 2	Works Contents
(*2023*) May	The 2nd scientific meeting	■ Discuss on the interim report of each task team ■ Draft an updated roadmap
July	The 16th meeting of the Informal Consultation	■ Authorize the latest statistics (catch, trade, input, etc) on eels submitted by Members ■ Approve the draft updated roadmap
August	Task Teams 1 and 2	■ Register team members for each task team ■ Determine work plan and role assignments ✓ Task Team 1 - Review the available statistics - Improve collection of fisheries statistics and complementary data - Share and improve knowledge on model analysis - Discuss the potential use of eDNA surveys - Discuss/identify specific indicators/parameters for stock assessments or trend analysis of Japanese eel as the single stock in Northeast Asian region - Others ✓ Task Team 2

		- Improve migration tracking survey techniques - Discuss field research plan in Northeast Asian region
August-December	Task Teams 1 and 2	■ Collaborative work based on the plan
(2024) January-February	Task Teams 1 and 2	■ Online workshop for the Task Teams 1 and 2 / An interim report for the task
March-April	The 3rd Scientific Meeting	■ Discuss on the interim report of each task team ■ Draft an updated roadmap
May-June	The 17th meeting of the Informal Consultation	■ Authorize the latest statistics (catch, trade, input, etc) on eels submitted by Members ■ Approve the draft updated roadmap

附件 8

Attachment 09

【Revised Standard Working Formats for Eel Statistics (2023)】 Members：China

Format 1：Data on Catch of Japanese Eel (Data is limited to taken from the wild)

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Catch of glass eel	kg	28000.0	19500.0	55000.0	20500.0	21000.0	26500.0	16000.0	14500.0	50000.0	38000.0	29500.0	40450.0
Catch of eel fry (kuroko)	kg											-	-
Catch of wild adult eel	kg or tons											-	-

【Notes】:

1. The catch data of Japanese eel are entered by glass eel, eel fry and wild adult eel, respectively.

2. Unit for catch of glass eel and eel fry should be weight in kilograms. Unit for adult eel should be weight in metrc tons.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (catch of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members:

Format 2：Data on Fishing effort on Japanese eel

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Fishing effort on glass eel	number of licences (or fishermans, fishing vessels)											-	
Fishing effort on eel fry (kuroko)	number of licences (or fishermans, fishing vessels)											-	-
Fishing effort on wild adult eel	number of licences (or fishermans, fishing vessels)											-	-

【Notes】:

1. The data of fishing effort on Japanese eel are entered by glass eel, eel fry and adult eel, respectively.

2. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels.The unit can be chosen in accordance with each domestic legislations.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (fishing effort on glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members:

Format 3: Input of eel seeds (glass eels and eel fry (kuroko)) into aquaculture ponds

Species	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	kg	8000.0	7000.0	45000.0	9300.0	8200.0	16500.0	3500.0	3000.0	36000.0	33000.0	18000.0	20000.0
domestic catch	kg				9300.0	8200.0	16500.0	3500.0	3000.0	36000.0	33000.0	18000.0	20000.0
imports	kg											-	-
Other eel species	kg	14500.0	20000.0	32000.0	35500.0	39500.0	36000.0	33000.0	33500.0	35000.0	29000.0	28,000.0	34,000.0
bicolor	kg	5,500.0	7,000.0	13,500.0	3,500.0	8,000.0	3,000.0	0.0	0.0	0.0	0.0	0.0	3,000.0
anguilla	kg	0.0	0.0	0.0	0.0	4,500.0	5,000.0	4,000.0	2,500.0	2,000.0	0.0	0.0	0.0
rostrata	kg	9,000.0	13,000.0	18,500.0	32,000.0	27,000.0	28,000.0	29,000.0	31,000.0	33,000.0	29,000.0	28,000.0	31,000.0
marmorata	kg											-	-
mossambica	kg											-	-
Total	kg	22500.0	27000.0	77000.0	44800.0	47700.0	52500.0	36500.0	36500.0	71000.0	62000.0	46000.0	54000.0

【Notes】:

1. Inputs of eel seeds (glass eels and eel fry) into aquaculture ponds are entered by japonica and other eel species, respectively

2. The data of japonica are entered by domestical catched seeds and imported seeds, respectively

3. However, eel seeds which transferred by other countries and regions are not included in the data of input of eel seeds.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

5. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

6. The statistic period of the data related to eel seeds (input of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

○Comments by Members:

Format 4: Aquaculture production

Species	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	tons	8,000.0	12,000.0	11,000.0	14,000.0	16,000.0	16,000.0	18,000.0	14,000.0	14,000.0	28,000.0	-	-
Other eel species	tons	32000.0	30000.0	35000.0	42000.0	50000.0	52000.0	57000.0	65000.0	68000.0	64000.0	-	-
bicolor	tons	1,000.0	2,000.0	2,000.0	3,000.0	1,000.0	1,000.0					-	-
anguilla	tons	22,000.0	15,000.0	16,000.0	15,000.0	13,000.0	12,000.0	12,000.0	8,000.0	5,000.0	3,000.0	-	-
rostrata	tons	9,000.0	13,000.0	17,000.0	24,000.0	36,000.0	39,000.0	45,000.0	57,000.0	63,000.0	61,000.0	-	-
marmorata	tons											-	-
mossambica	tons											-	-
Total	tons	40000.0	42000.0	46000.0	56000.0	66000.0	68000.0	75000.0	79000.0	82000.0	92000.0	120000.0	-

【Notes】:

1. The data of aquaculture production are entered by japonica and other eel species, respectively

2. Unit for aquaculture production should be weight (kilograms or metrc tons) as far as possible.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Aquaculture production data should be the calendar year.

○Comments by Members:

Format 5: Other data on aquaculture

Item	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Scale of aquaculture industry	number of aquaculture operators	465	558	687	696	772	797	830	868	918	925	1004	1100

【Notes】:

①Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.

②When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

○Comments by Members:

Format 6: Import of eel seeds (glass eels and eel fry)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	glass eel	kg											-	-
	eel fry (kuroko)	kg											-	-
Total		kg											-	-
Other eel species	glass eel	kg	14,500.0	20,000.0	32,000.0	35,500.0	39,500.0	36,000.0	33,000.0	33,500.0	35,000.0	29,000.0	28,000.0	34,000.0
	eel fry (kuroko)	kg											-	-
Total		kg	14,500.0	20,000.0	32,000.0	35,500.0	39,500.0	36,000.0	33,000.0	33,500.0	35,000.0	29,000.0	28000.0	34000.0

【Notes】:

1. The data of import of eel seeds (glass eels and eel fry) are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (import of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

Format 7: Import of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	live eel	kg or tons												
	broiled eel	kg or tons												
Other eel species		kg or tons												
		kg or tons												
Total		kg or tons												

【Notes】:

①The data of import of eel and eel products are entered by japonica and other eel species, respectively

②Examples of type/size of import of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.

③When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

④Unit for import of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

Format 8: Export of eel seeds (glass eels and eel fry)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	glass eel	kg	19000.0	14000.0	9500.0	10000.0	11200.0	12800.0	10000.0	11500.0	8000.0	5000.0	12000.0	13300.0
	eel fry (kuroko)	kg											-	-
Total		kg	19000.0	14000.0	9500.0	10000.0	11200.0	12800.0	10000.0	11500.0	8000.0	5000.0	12000.0	13300.0
Other eel species	glass eel	kg												
	eel fry (kuroko)	kg												
Total		kg												

【Notes】:

1. The data of export of eel seeds are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (export of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

Format 9: Export of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	live eel	kg or tons												
	broiled eel	kg or tons												
Other eel species		kg or tons												
		kg or tons												
Total		tons	36,398.0	33,917.0	35,001.0	40,295.0	41,426.0	42,357.0	/	46,732.0	52,432.0	69,917.0	64,200.0	-
japonica/Other eel species （Data on Japanese eel and other eels are indistinguishable）	live eel	tons	3,846.0	5,295.0	5,818.0	5,562.0	6,219.0	6,781.0	/	7,508.0	9,630.0	10,107.0	14,100.0	-
	broiled eel	tons	32,552.0	28,622.0	29,183.0	34,733.0	35,207.0	35,576.0	/	39,224.0	42,802.0	59,810.0	50,100.0	-

【Notes】:

1. The data of export of adult eel and eel products are entered by japonica and other eel species, respectively

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

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for export of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

Format 10. Mean value of wight and length of Japanese eel

	Unit	When catching	When inputing into aquaculture ponds	When importing	When exporting
glass eel	weight (g)				
	body length (cm)				
eel fry	weight (g)				
	body length (cm)				
adult eel	weight (g)				
	body length (cm)				

【Notes】:

1. The data of weight and length of Japanese eel into aquaculture ponds are entered by glass eel, eel fry and adult eel, respectively.

2. The data entered can be either mean value or figures in certain ranges (e.g., XX – YYg or cm). If mean value is available, it should be clearly mentioned in the comments by Members that the mean value of weight and length figures are based on biological or administrative standards or figures obtained from industry associations, etc.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. "Body length" is the length of a fish measured from the tip of the snout to the posterior end of the last vertebra.

○Comments by Members:

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

(* Please fill in data sources and/or methoods to collect or estimate the data entried in from format 1 to format 14 respectively.)

項目	データの出典・収集又は算出方法
1. Catch of glass eel	The data is estimated in every fishing period (from October to May of next year) by adding the amount of export of glass eels to the amount of input of glass eels into aquaculture ponds by some local eel farming association.
2. Catch of eel fry (kuroko)	-
3. Catch of wild adult eel	There is no commercial fishing aiming to catch adult eels in China.
4. Fishing effort on glass eel	
5. Fishing effort on eel fry (kuroko)	-
6. Fishing effort on wild adult eel	There is no commercial fishing aiming to catch adult eels in China.

7. Input of eel seeds into aquaculture ponds	The data is collected and estimated by local eel farming association of the major eel production provinces.
8. Aquaculture production	The data is collected and estimated by local eel farming association of the major eel production provinces.
9. Scale of aquaculture industry	The data is collected and estimated by local eel farming association of the major eel production provinces.
10. Import of eel seeds	The data is from "China Seafood Improts and Exports" edited and published by the China Society of Fisheries.
11. Import of eel and eel products	The data is from "China Seafood Improts and Exports" edited and published by the China Society of Fisheries.
12. Export of eel seeds	The data is from "China Seafood Improts and Exports" edited and published by the China Society of Fisheries.
13. Export of eel and eel products	The data is from "China Seafood Improts and Exports" edited and published by the China Society of Fisheries.
14. Mean value of wight and length of Japanese eel	

【Revised Standard Working Formats for Eel Statistics (2023)】 Members：Japan

Format 1：Data on Catch of Japanese Eel (Data is limited to taken from the wild)

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Catch of glass eel	tons(~2014-15), kg(2015-16~)	9.0	5.2	17.4	15.3	13625.2	15442.4	8967.5	3670.1	17112.4	11333.9	10344.7	5644.1(*1)
Catch of eel fry (kuroko)(*2)	kg	-	-	-	-	-	-	-	-	-	-	-	-
Catch of wild adult eel(*3)	tons	165	135	112	70	71	71	69	66	66	63	59	-

【Notes】:

1. The catch data of Japanese eel are entered by glass eel, eel fry and wild adult eel, respectively.

2. Unit for catch of glass eel and eel fry should be weight in kilograms. Unit for adult eel should be weight in metrc tons.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (catch of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members:

*1 The 2022-2023 season data of catch of glass eel is from 1st November to 31st May temporarily.
*2 There are no relevant data of "Catch of eel fry (kuroko)".
*3 The latest data available for "Catch of wild adult eel" is 2021-2022 season.

Format 2：Data on Fishing effort on Japanese eel

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Fishing effort on glass eel(*4)	number of licences (or fishermans, fishing vessels)	6,669	6,781	6,617	4,698	4,398	4,790	5,874	5,898	5,762	5,723	4,467	-
Fishing effort on eel fry (kuroko)(*5)	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-
Fishing effort on wild adult eel(*6)	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-

【Notes】:

1. The data of fishing effort on Japanese eel are entered by glass eel, eel fry and adult eel, respectively.

2. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels.The unit can be chosen in accordance with each domestic legislations.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (fishing effort on glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members:

*4 The latest data available for "Fishing effort on glass eel" is 2021-2022 season.
*5 There are no relevant data of "Fishing effort on eel fry (kuroko)".
*6 There are no relevant data of "Fishing effort on wild adult eel".

Format 3：Input of eel seeds (glass eels and eel fry (kuroko)) into aquaculture ponds

Species	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	tons(~2014-15), kg(2015-16~)	15.9	12.6	27.1	18.3	19716.2	19590.4	14178.5	15175.1	20131.4	18285.9	16187.7	16188.1
domestic catch	tons(~2014-15), kg(2015-16~)	9.0	5.2	17.4	15.3	13625.2	15442.4	8967.5	3670.1	17112.4	11333.9	10344.7	5644.1
imports	tons(~2014-15), kg(2015-16~)	6.9	7.4	9.7	3.0	6091	4148	5211	11505	3019	6952	5843	10544
Other eel species(*7)													
bicolor													
anguilla	tons(~2014-15), kg(2015-16~)	0.43	1.30	3.50	0.05	175.4	94.8	34.9	51.6	58.5	59.9	74.6	40.6
rostrata													
marmorata													
mossambica													
Total	tons(~2014-15), kg(2015-16~)	16.3	13.9	30.6	18.3	19891.6	19685.2	14213.4	15226.7	20189.9	18345.8	16262.3	16228.7

【Notes】:

1. Inputs of eel seeds (glass eels and eel fry) into aquaculture ponds are entered by japonica and other eel species, respectively

2. The data of japonica are entered by domestical catched seeds and imported seeds, respectively

3. However, eel seeds which transferred by other countries and regions are not included in the data of input of eel seeds.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

5. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

6. The statistic period of the data related to eel seeds (input of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

○Comments by Members:

*7 While it is not possible to provide species-specific data about "Other eel species" up to 2021-22 season, the data is expected to be available after the 2022-2023 season.

Format 4: Aquaculture production(*8,9)

Species	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	tons	17,377	14,204	17,627	20,119	18,907	20,979	15,111	17,071	16,806	20,673	19,155	-
Other eel species	tons												
bicolor	tons												
anguilla	tons												
rostrata	tons												
marmorata	tons												
mossambica	tons												
Total	tons	17,377	14,204	17,627	20,119	18,907	20,979	15,111	17,071	16,806	20,673	19,155	-

【Notes】:

1. The data of aquaculture production are entered by japonica and other eel species, respectively

2. Unit for aquaculture production should be weight (kilograms or metrc tons) as far as possible.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Aquaculture production data should be the calendar year.

○Comments by Members:

*8 Total data of aquaculture production is entered, as it is not possible to provide species-specific data.

*9 The latest data available for "Aquaculture production" is 2022 temporarily.

Format 5: Other data on aquaculture

Item	Unit	2012(*10)	2013	2014(*10)	2015	2016	2017	2018	2019	2020	2021	2022	2023
Scale of aquaculture industry	number of aquaculture operators	-	384	-	439	441	463	460	456	442	436	433	431

【Notes】:

①Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.

②When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

○Comments by Members:

*10 The data source for 2013 is “Census of Fisheries”published by the Ministry of Agriculture, Forestry and Fisheries every five years. The data from 2015 to 2022 are the total number of japonica-farming operators who are granted licenses issued by the Ministry of Agriculture, Forestry and Fisheries under the licensing system inaccordance with the Inland Water Fishery Promotion Act, which entered into force in June 2015. There are no relevant data of 2012 and 2014.

Format 6: Import of eel seeds (glass eels and eel fry)(*11)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23(*12)
japonica	glass eel	tons(~2014-15), kg(2015-16~)	9.2	10.7	12.5	3.6	7,585	4,827	5,303	12,563	3,999	10,177	8,193	12,043
	eel fry (kuroko)													
Other eel species	glass eel													
	eel fry (kuroko)													
Total		tons(~2014-15), kg(2015-16~)	9.2	10.7	12.5	3.6	7,585	4,827	5,303	12,563	3,999	10,177	8,193	12,043

【Notes】:

1. The data of import of eel seeds (glass eels and eel fry) are entered by japonica and other eel species, respectively
2. The statistic period of the data related to eel seeds (import of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

*11 It is not possible to provide type/size-specific and species-specific data. Therefore, a new row "Grand Total" was inserted for the total data of import of eel seeds (glass eels and eel fries) for all the species.

*12 The 2022-2023 season data of import of eel seeds (glass eels and eel fries) is from 1st November to 31st May temporarily.

Format 7: Import of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023(*14)
japonica	live eel	tons												
	broiled eel	tons												
Other eel species		tons												
		tons												
Total		tons	19,660.9	18,257.7	20,213.7	31,156.1	31,469.3	32,293.5	33,236.3	31,409.8	34,342.8	42,366.8	38,580.6	20,430.5
japonica/Other eel species (*13)	live eel	tons	4,677.6	4,789.2	4,781.1	7,066.7	7,276.1	6,815.7	8,812.7	6,733.2	5,441.1	7,034.5	8,267.4	3,392.7
	broiled eel	tons	14,983.3	13,468.5	15,432.7	24,089.4	24,193.2	25,477.8	24,423.6	24,676.6	28,901.7	35,332.3	30,313.2	17,037.8

【Notes】:

①The data of import of eel and eel products are entered by japonica and other eel species, respectively

②Examples of type/size of import of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.

③When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

④Unit for import of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

*13 It is not possible to provide species-specific data. Therefore, a new row "japonica/Other eel species" was inserted for the data of import of all the species in live and broiled types seprately.

*14 The 2023 data of import of eel and eel products is from 1st January to 31st May temporarily.

Format 8: Export of eel seeds (glass eels and eel fry)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	glass eel(*15)	tons(~2020-21), kg(2021-22)	-	-	-	-	-	-	-	-	-	0.1	20.0	-
	eel fry (kuroko)(*16)	tons(~2020-21), kg(2021-22)	5.7	1.6	6.7	1.3	0.4	0.9	2.6	10.1	23.6	9.1	4818.8	-
Total		tons(~2020-21), kg(2021-22)	5.7	1.6	6.7	1.3	0.4	0.9	2.6	10.1	23.6	9.2	-	-
Other eel species	glass eel(*15)	kg	-	-	-	-	-	-	-	-	-	0.0	-	-
	eel fry (kuroko)(*16)	kg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
Total		kg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

【Notes】:

1. The data of export of eel seeds are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (export of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st December, 20XX to 30th November, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

*15 The “glass eel” is the eels in 13g or less that have never been farmed in domestic aquaculture ponds. It is not possible to provide the data up to 2019-20, as the export of such “glass eel“ was prohibited.The latest data available for glass eel is 2021-2022 season.

*16 The “eel fry (kuroko)” is the eels in 13g or less that have been farmed in domestic aquaculture ponds.The latest data available for eel fry (kuroko) is 2021-2022 season.

Format 9: Export of eel and eel products(*17)

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023(*18)
japonica	live eel	kg or tons												
	broiled eel	kg or tons												
Other eel species		kg or tons												
		kg or tons												
Total		kg or tons	31.6	32.1	69.6	59.6	71.0	112.2	66.5	80.4	135.2	85.9	16.5	15.4
japonica/Other eel species (*17)	live eel	tons	10.4	2.2	38.8	20.7	25.8	45.6	7.4	17.8	44.8	17.0	9.3	1.6
	broiled eel	tons	21.2	30.0	30.9	38.9	45.2	66.6	59.1	62.6	90.4	68.9	7.2	13.8

【Notes】:

1. The data of export of adult eel and eel products are entered by japonica and other eel species, respectively

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

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for export of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

*17 It is not possible to provide species-specific data. Therefore, a new row "japonica/Other eel species" was inserted for the data of export of all the species in live and boiled types seprately.

*18 The 2023 data of export of eel and eel products is from 1st January to 31st May temporarily.

Format 10. Mean value of wight and length of Japanese eel

	Unit	When catching(*19)	When inputing into aquaculture ponds(*20)	When importing(*21)	When exporting(*22)
glass eel	weight (g)	0.2g	-	-	～13g
	body length (cm)	6cm	-	-	-
eel fry	weight (g)	0.2g～13g	-	-	～13g
	body length (cm)	6cm～20cm	-	-	-
adult eel	weight (g)	300g～	-	-	-
	body length (cm)	50cm～	-	-	-

【Notes】:

1. The data of weight and length of Japanese eel into aquaculture ponds are entered by glass eel, eel fry and adult eel, respectively.

2. The data entered can be either mean value or figures in certain ranges (e.g., XX – YYg or cm). If mean value is available, it should be clearly mentioned in the comments by Members that the mean value of weight and length figures are based on biological or administrative standards or figures obtained from industry associations, etc.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. "Body length" is the length of a fish measured from the tip of the snout to the posterior end of the last vertebra.

○Comments by Members:
*19 The data of each "when catching" is estimated based on actual measurement values of weight and total length at each life stage of Japanese eel.
*20 There are no relevant data of "When inputing into aquaculture ponds".
*21 There are no relevant data of "When importing".
*22 There are no relevant data of total length because the glass eel and eel fry(kuroko) are administrated with "weight" in accordance with Export Trade Control Order when exporting.

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

(* Please fill in data sources and/or methoods to collect or estimate the data entried in from format 1 to format 14 respectively.)

1. Catch of glass eel	The data is estimated in every fishing period (from November of previous year to May) by deducting the amount of import of glasseels (calculated from the Trade Statistics every fishing period) from the amount of input of glass eels into aquaculture ponds which reported by eel-farming operators.
2. Catch of eel fry (kuroko)	-
3. Catch of wild 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 sentto fisheries cooperatives covering main rivers and lakes as well as aquaculture operators all around the country.
4. 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 issuelicenses.
5. Fishing effort on eel fry (kuroko)	-
6. Fishing effort on wild adult eel	-
7. Input of eel seeds into aquaculture ponds	The data is from the amount of input of glass eels into aquaculture ponds which reported by eel-farming operators.The data of eel seeds domestically captured is estimated by deducting the amount of input of glass eels into aquaculture ponds which reported by eel-farming operators from the amount of import of glasseels (calculated from the Trade Statistics). .The data of imported eel seeds is calculated from the Trade Statistics every fishing period.
8. Aquaculture production	The data is from "Annual Statistics on Fisheries and Aquaculture Production" compiled and published by the Ministry of Agriculture,Forestry and Fisheries.
9. 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 from 2015 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 inaccordance with the Inland Water Fishery Promotion Act, which entered into force in June 2015.
10. Import of eel seeds	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 (Anguilla spp.) - fry for fish culture).
11. Import of eel and eel products	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 (Anguilla 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 body of fish, dividing the amount of products by 0.6.
12. Export of eel seeds	The data is from the custom records and the reports submitted by exporters on eel seeds actually exported.

13. Export of eel and eel products	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 (Anguilla 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 body of fish, dividing the amount of products by 0.6.
14. Mean value of wight and length of Japanese eel	The value of weight of glass eel and eel fry(kuroko) when exporting are from Export Trade Control Order.The data of weight and total length of glass eel, eel fry(kuroko) and adult eel are estimated based on actual measurement values of wight and total length.

【Revised Standard Working Formats for Eel Statistics (2023)】 Members：Korea

Format 1：Data on Catch of Japanese Eel (Data is limited to taken from the wild)

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Catch of glass eel	kg	1,530	1,002	5,489	4,725	1,830	2,717	973	649	4,500	3,228	2,512	2,165
Catch of eel fry (kuroko)	kg	-	-	-	-	-	-	-	-	-	-	-	-
Catch of wild adult eel	tons	102	73	80	85	70	48	56	60	59	84	9	8

【Notes】:

1. The catch data of Japanese eel are entered by glass eel, eel fry and wild adult eel, respectively.

2. Unit for catch of glass eel and eel fry should be weight in kilograms. Unit for adult eel should be weight in metrc tons.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (catch of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members:

Format 2：Data on Fishing effort on Japanese eel(*1)

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Fishing effort on glass eel	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-
Fishing effort on eel fry (kuroko)	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-
Fishing effort on wild adult eel	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-

【Notes】:

1. The data of fishing effort on Japanese eel are entered by glass eel, eel fry and adult eel, respectively.

2. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels.The unit can be chosen in accordance with each domestic legislations.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (fishing effort on glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members:

*1 As number of licences is not managed by species in Korea, relevant data is not available.

Format 3: Input of eel seeds (glass eels and eel fry (kuroko)) into aquaculture ponds

Species	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	kg	3,595	2,992	13,927	6,707	9,380	10,596	5,234	2,524	9,502	8,149	8,185	10,129
domestic catch	kg	1,530	1,002	5,489	4,725	1,830	2,717	973	649	4,500	3,228	2,512	2,165
imports	kg	2,065	1,990	8,438	1,982	7,550	7,879	4,261	1,875	5,002	4,921	5,673	7,964
Other eel species	kg	5,628	13,987	3,166	5,145	3,004	657	3,690	2,959	692	1,297	1,914	948
bicolor	kg	3,508	5,908	2,668	4,986	2,937	590	3,405	393	542	714	880	272
anguilla	kg	75	0	0	0	0	0	0	0	0	0	0	0
rostrata	kg	1,726	5,520	498	159	35	35	168	0	5	8	28	0
marmorata	kg	294	439	0	0	32	32	117	2,566	145	575	1,006	676
mossambica	kg	25	2,120	0	0	0	0	0	0	0	0	0	0
Total	kg	9,223	16,979	17,093	11,852	12,384	11,253	8,924	5,483	10,194	9,446	10,099	11,077

【Notes】:

1. Inputs of eel seeds (glass eels and eel fry) into aquaculture ponds are entered by japonica and other eel species, respectively

2. The data of japonica are entered by domestical catched seeds and imported seeds, respectively

3. However, eel seeds which transferred by other countries and regions are not included in the data of input of eel seeds.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

5. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

6. The statistic period of the data related to eel seeds (input of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

○Comments by Members:

Format 4: Aquaculture production(*2)

Species	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
Other eel species	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
bicolor	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
anguilla	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
rostrata	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
marmorata	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
mossambica	kg or tons	-	-	-	-	-	-	-	-	-	-	-	-
Total	tons	4,259	5,149	5,631	9,009	9,836	11,095	10,530	10,885	9,724	15,678	18,131	6,383

【Notes】:

1. The data of aquaculture production are entered by japonica and other eel species, respectively

2. Unit for aquaculture production should be weight (kilograms or metrc tons) as far as possible.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Aquaculture production data should be the calendar year.

○Comments by Members:

*2 The data is based on 'Survey of recent trends in fishery production' which is official statistics designated by national statistics law.

Format 5: Other data on aquaculture

Item	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Scale of aquaculture industry	number of aquaculture operators	524	532	536	564	542	555	558	572	592	616	589	589

【Notes】:

①Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.

②When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

○Comments by Members:

Format 6: Import of eel seeds (glass eels and eel fry)(*3)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	glass eel	kg	2,065	1,990	8,438	1,982	7,550	7,879	4,261	1,875	5,002	4,921	5,673	7,964
	eel fry (kuroko)	kg	0	225	5,605	4,499	2,523	2,309	9,062	8,361	2,077	23,120	8,136	1,566
Total		kg	2,065	2,215	14,043	6,481	10,073	10,188	13,323	10,236	7,079	28,041	13,809	9,530
Other eel species	glass eel	kg	5,628	13,987	3,166	5,145	3,004	657	3,690	2,959	692	1,297	1,914	686
	eel fry (kuroko)	kg	1,208	37,717	1,842	10,223	19,078	4,751	14,631	12,727	3,601	4,267	981	408
Total		kg	6,836	51,704	5,008	15,368	22,082	5,408	18,321	15,686	4,293	5,564	2,895	1,094

【Notes】:

1. The data of import of eel seeds (glass eels and eel fry) are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (import of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members: *3 glass eel≤0.3g, 0.3g<eel fry≤30g, 0.3g<eel fry(japonica)≤15g

Format 7: Import of eel and eel products(*4)

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	live eel	kg or tons												
	broiled eel	kg or tons												
Other eel species		kg or tons												
		kg or tons												
Total		kg or tons												
Anguilla sp.	live eel	tons	137.7	837.0	1,358.8	799.2	615.9	740.6	1,011.9	574.7	2,539.2	1,337.4	2,891	1,782
	freeze	tons	26.9	43.2	38.3	26.1	63.7	42.1	71.8	55.5	25.3	25.3	125.6	0
	cold storage	tons	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0
	broiled eel	tons	69.2	66.7	69.6	183.9	308.8	583.9	757.8	784.6	906.9	1,257.3	1,441.3	577
	Total	tons	233.9	946.9	1,466.8	1,009.2	988.4	1,366.6	1,841.8	1,414.8	3,471.4	2,620.0	4,457.9	2,359.4

【Notes】:

①The data of import of eel and eel products are entered by japonica and other eel species, respectively

②Examples of type/size of import of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.

③When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

④Unit for import of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

*4 Relevant data is not available by species.

Format 8: Export of eel seeds (glass eels and eel fry)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	glass eel	kg												
	eel fry (kuroko)	kg												
Total		kg												
Other eel species	glass eel	kg												
	eel fry (kuroko)	kg												
Total		kg												
Anguilla sp.(*5)	glass eel(*6)	kg	0	0	50	0	0	0	0	0	4,560	3,072	0	0
	eel fry (kuroko)(*7)	kg	0	0	3,262	0	138	0	0	0	0	0	0	0
	Total	kg	0	0	3,312	0	138	0	0	0	4,560	3,072	0	0

【Notes】:

1. The data of export of eel seeds are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (export of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

*5 Relevant data is not available by species.
*6 Glass eel: below 0.3g & for aquaculture.
*7 Eel fry : between 0.3g to 50g & for aquaculture

Format 9: Export of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
japonica	live eel	kg or tons												
	broiled eel	kg or tons												
Other eel species		kg or tons												
		kg or tons												
Total		kg or tons												
Anguilla sp.(*8)	live eel	tons	79.9	2.3	0.1	0.4	0.0	19.4	0.2	0.0	5.2	3.1	0.0	0
	freeze	tons	11.1	1.1	0.0	0.1	2.1	23.8	25.2	0.3	1.0	1.0	0.3	0.1
	cold storage	tons	0.1	0.0	0.0	0.1	0.0	0.0	0.6	0.0	0.2	1.0	0.1	0.0
	broiled eel	tons	0.1	7.3	0.3	1.4	3.3	1.1	4.2	5.9	4.7	42.3	89.2	16.7
	Total	tons	91.2	10.7	0.4	2.0	5.4	44.3	30.2	6.2	11.1	47.4	89.6	16.8

【Notes】:

1. The data of export of adult eel and eel products are entered by japonica and other eel species, respectively
2. Examples of type/size of export of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.
3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.
4. Unit for export of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:
*8 Relevant data is not available by species.

Format 10. Mean value of wight and length of Japanese eel

	Unit	When catching(*9)	When inputing into aquaculture ponds(*9)	When importing	When exporting
glass eel	weight (g)	0.2g	0.2g	below 0.3g	below 0.3g
	body length (cm)	5~7cm	5~7cm	-	-
eel fry	weight (g)	0.3g~199g	-	between 0.3g to 50g	between 0.3g to 50g
	body length (cm)	8~59cm	-	-	-
adult eel	weight (g)	above 200g	-	-	-
	body length (cm)	above 60cm	-	-	-

【Notes】:

1. The data of weight and length of Japanese eel into aquaculture ponds are entered by glass eel, eel fry and adult eel, respectively.

2. The data entered can be either mean value or figures in certain ranges (e.g., XX – YYg or cm). If mean value is available, it should be clearly mentioned in the comments by Members that the mean value of weight and length figures are based on biological or administrative standards or figures obtained from industry associations, etc.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. "Body length" is the length of a fish measured from the tip of the snout to the posterior end of the last vertebra.

○Comments by Members:

*9 The data is calculated based on materials submitted by Fresh Water Eel Culture Fisheries Cooperative, not stipulated in national laws.

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

(* Please fill in data sources and/or methoods to collect or estimate the data entried in from format 1 to format 14 respectively.)

1. Catch of glass eel	Fresh Water Eel Culture Fisheries Cooperative and Fisheries Monotoring Center of Korea Maritime Institute
2. Catch of eel fry (kuroko)	Not Applicable
3. Catch of wild adult eel	Survey of recent trends in fishery production' by Statistics Korea
4. Fishing effort on glass eel	Not Applicable
5. Fishing effort on eel fry (kuroko)	Not Applicable
6. Fishing effort on wild adult eel	Not Applicable
7. Input of eel seeds into aquaculture ponds	Fresh Water Eel Culture Fisheries Cooperative and Fisheries Monotoring Center of Korea Maritime Institute
8. Aquaculture production	Survey of recent trends in fishery production' by Statistics Korea (not managed by species)
9. Scale of aquaculture industry	Local government
10. Import of eel seeds	National Fishery Products Quality Management Service (NFQS)
11. Import of eel and eel products	수산정보포탈시스템(www.fips.go.kr)
12. Export of eel seeds	수산정보포탈시스템(www.fips.go.kr)

13. Export of eel and eel products	수산정보포탈시스템(www.fips.go.kr)
14. Mean value of wight and length of Japanese eel	Fresh Water Eel Culture Fisheries Cooperative and Fisheries Monotoring Center of Korea Maritime Institute

【Revised Standard Working Formats for Eel Statistics (2023)】 Members：Chinese Taipei

Format 1：Data on Catch of Japanese Eel (Data is limited to taken from the wild)

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Catch of glass eel	kg	1,912	960	8,250	1,100	3,060	4,500	1,100	2,750	5,240	6,005	1,600	1850(*1)
Catch of eel fry (kuroko)(*2)	kg	-	-	-	-	-	-	-	-	-	-	-	-
Catch of wild adult eel(*2)	tons	-	-	-	-	-	-	-	-	-	-	-	-

【Notes】:

1. The catch data of Japanese eel are entered by glass eel, eel fry and wild adult eel, respectively.

2. Unit for catch of glass eel and eel fry should be weight in kilograms. Unit for adult eel should be weight in metrc tons.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (catch of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members：

*1 The catch of glass eel 2022-2023 season is preliminary data.

*2 There are no available statistics for eel fry and wild adult eel fishing fisheries in Chinese Taipei.

Format 2：Data on Fishing effort on Japanese eel

Item	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Fishing effort on glass eel	number of licences (or fishermans, fishing vessels)	-	213	232	250	245	251	272	311	363	374	364	322
Fishing effort on eel fry (kuroko)(*3)	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-
Fishing effort on wild adult eel(*3)	number of licences (or fishermans, fishing vessels)	-	-	-	-	-	-	-	-	-	-	-	-

【Notes】:

1. The data of fishing effort on Japanese eel are entered by glass eel, eel fry and adult eel, respectively.

2. Examples of unit for fishing effort may include the number of licenses, the number of fishermen or the number of fishing vessels.The unit can be chosen in accordance with each domestic legislations.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. The statistic period of the data related to glass eel and eel fry (fishing effort on glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.), while that for "wild adult eel data" should be the calendar year.

○Comments by Members：

*3 There are no available statistics for eel fry and wild adult eel fishing fisheries in Chinese Taipei.

Format 3：Input of eel seeds (glass eels and eel fry (kuroko)) into aquaculture ponds(*4)

Species	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23(*5)
japonica	kg	2,210	1,510	12,500	2,800	3,600	7,300	1,030	834	8,144	4,558	887	526
domestic catch	kg	-	-	-	-	-	-	-	-	-	-	-	
imports	kg	-	-	-	-	-	-	-	-	-	-	-	
Other eel species	kg	5,500	10,000	1,450	200	80	100	50	141	124	114	70	13
bicolor	kg	-	-	-	-	-	-	-	-	-	-	-	-
anguilla	kg	-	-	-	-	-	-	-	-	-	-	-	-
rostrata	kg	-	-	-	-	-	-	-	-	-	-	-	-
marmorata	kg	-	-	-	-	-	-	-	-	-	-	-	-
mossambica	kg	-	-	-	-	-	-	-	-	-	-	-	-
Total	kg	7,710	11,510	13,950	3,000	3,680	7,400	1,080	975	8,267	4,672	957	539

【Notes】:

1. Inputs of eel seeds (glass eels and eel fry) into aquaculture ponds are entered by japonica and other eel species, respectively

2. The data of japonica are entered by domestical catched seeds and imported seeds, respectively

3. However, eel seeds which transferred by other countries and regions are not included in the data of input of eel seeds.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

5. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

6. The statistic period of the data related to eel seeds (input of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

○Comments by Members:

*4 Because the eel culture industry in Chinese Taipei has some characteristics, such as several breeding stages and longer seed stocking time, the data would be expressed in total statistics.

*5 The input of glass eel into aquaculture ponds 2022-2023 season is preliminary data from 1st November to 30th April.

Format 4: Aquaculture production(*6)

Species	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022(*7)	2023
japonica	tons	2,244	1,500	1,675	5,187	4,658	3,665	4,204	3,521	1,693	5,044	3,331	-
Other eel species	tons	-	404	228	394	154	81	106	142	155	219	121	-
bicolor	tons	-	-	-	-	-	-	-	-	-	-	-	-
anguilla	tons	-	-	-	-	-	-	-	-	-	-	-	-
rostrata	tons	-	-	-	-	-	-	-	-	-	-	-	-
marmorata	tons	-	-	-	-	-	-	-	-	-	-	-	-
mossambica	tons	-	-	-	-	-	-	-	-	-	-	-	-
Total	tons	2,244	1,904	1,903	5,581	4,812	3,746	4,310	3,663	1,848	5,263	3,452	-

【Notes】:

1. The data of aquaculture production are entered by japonica and other eel species, respectively

2. Unit for aquaculture production should be weight (kilograms or metrc tons) as far as possible.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Aquaculture production data should be the calendar year.

○Comments by Members:

*6 The eel aquaculture production statistics in Chinese Taipei, which are divided into two categories 'Japanese eel' and 'other eel species', are reported by local governments. Thus, the data would be expressed in total statistics.

*7 The aquaculture production in 2022 is preliminary data.

Format 5: Other data on aquaculture

Item	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022(*8)	2023
Scale of aquaculture industry	hectares of aquaculture area	449	305	456	391	392	409	341	241	317	391	351	

【Notes】:

①Unit for scale of aquaculture industry may include the number of aquaculture operator or the dimensions of aquaculture ponds.

②When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

○Comments by Members:

*8 The hectares of aquaculture area in 2022 is preliminary data.

Format 6: Import of eel seeds (glass eels and eel fry)(*9)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23(*10)
japonica	glass eel	kg	1,319	664	2,044	631	352	688	2,270	127	2,232	518	433	423
	eel fry (kuroko)	kg	508	708	4,286	60	764	1,950	91	55	7,853	1,273	563	345
Total		kg	1,827	1,372	6,330	691	1,116	2,638	2,361	182	10,085	1,791	996	768
Other eel species(*11)	glass eel	kg	-	-	-	-	-	-	-	-	-	-	-	-
	eel fry (kuroko)	kg	-	-	-	-	-	-	-	-	-	-	-	-
Total		kg	-	-	-	-	-	-	-	-	-	-	-	-

【Notes】:

1. The data of import of eel seeds (glass eels and eel fry) are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (import of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

*9 The CCC(Import and Export Commodity Classification of Chinese Taipei) codes 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)].

*10 The data of import of eel seeds 2022-23 is from 1st January to 31st May.

*11 According to the statistic of Customs Administration, Ministry of Finance and the CCC(Import and Export Commodity Classification of Chinese Taipei) codes, there are no available statistics for other eel species.

Format 7: Import of eel and eel products(*12)

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023(*13)
japonica	live eel	tons	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
	broiled eel	tons	0.0	0.0	0.0	0.0	0.1	6.5	0.0	0.0	188.6	37.7	1.0	0.1
Other eel species(*14)		tons	10.7	7.7	28.3	4.5	0.6	3.3	2.2	4.2	0.0	0.0	0.0	0.0
		tons	-	-	-	-	-	-	-	-	-	-	-	-
Total		tons	12.8	7.7	28.3	4.5	0.9	14.1	2.2	4.2	314.3	62.9	1.7	-

【Notes】:

①The data of import of eel and eel products are entered by japonica and other eel species, respectively

②Examples of type/size of import of eel and eel product may include live eel, frozen eel, chilled eel or broiled eel.

③When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

④Unit for import of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

*12 Since 2016 Taiwan has adopted the general trade system, which includes bonded warehouses, logistics centers, and free trade zones in the commodity trade statistics.

*13 The data of import of eel and eel products 2023 is from 1st January to 31st May.

*14 According to the statistic of Customs Administration, Ministry of Finance and the CCC(Import and Export Commodity Classification of Chinese Taipei) codes, there are no available statistics for broiled eel of other eel species.

Format 8: Export of eel seeds (glass eels and eel fry)(*15)

Species	Type/Size	Unit	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
japonica	glass eel	kg	869	93	150	0	0	0	830	0	0	228	168	0
	eel fry (kuroko)	kg	399	21	10	0	101	0	2,886	68	1,062	5,390	974	989
Total		kg	1,268	114	160	0	101	0	3,716	68	1,062	5,618	1,142	989
Other eel species(*16)	glass eel	kg	-	-	-	-	-	-	-	-	-	-	-	-
	eel fry (kuroko)	kg	-	-	-	-	-	-	-	-	-	-	-	-
Total		kg	-	-	-	-	-	-	-	-	-	-	-	-

【Notes】:

1. The data of export of eel seeds are entered by japonica and other eel species, respectively

2. The statistic period of the data related to eel seeds (export of glass eel and eel fry) should be the fishing season of glass eel and eel fry ("20XX-XX+1"means the input season which starts from 1st Novemver, 20XX to 31st October, 20XX+1.).

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for catch of glass eel and eel fry should be weight in kilograms.

○Comments by Members:

*15 The CCC(Import and Export Commodity Classification of Chinese Taipei) codes 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)].

*16 According to the statistic of Customs Administration, Ministry of Finance and the CCC(Import and Export Commodity Classification of Chinese Taipei) codes, there are no available statistics for other eel species.

Format 9: Export of eel and eel products

Species	Type/Size	Unit	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023(*17)
japonica	live eel	tons	1,362.7	866.8	891.6	2845.1	2544.4	2030.4	2396.4	1862.3	1009.1	1417.3	1654.1	460.4
	broiled eel	tons	370.4	176.0	153.4	561.7	230.2	135.3	162.8	94.4	56.7	449.3	132.3	76.2
Other eel species	live eel	tons	95.0	18.6	19.8	13.6	0.0	18.1	48.0	12.9	0.0	0.0	-	-
	broiled eel(*18)	tons	-	-	-	-	-	-	-	-	-	-	-	-
Total		tons	1,828.1	1,061.4	1,064.8	3,420.4	2,774.6	2,183.8	2,607.2	1,969.7	1,065.9	1,866.6	1,786.4	536.6

【Notes】:

1. The data of export of adult eel and eel products are entered by japonica and other eel species, respectively

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

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. Unit for export of eel and eel products should be weight (kilograms or metrc tons) as far as possible.

○Comments by Members:

*17 The data of Export of eel and eel products 2022 is from 1st January to 31st May.

*18 According to the statistic of Customs Administration, Ministry of Finance and the CCC(Import and Export Commodity Classification of Chinese Taipei) codes, there are no available statistics for broiled eel of other eel species.

Format 10. Mean value of wight and length of Japanese eel(*19,20)

	Unit	When catching	When inputing into aquaculture ponds	When importing	When exporting
glass eel	weight (g)				
	body length (cm)				
eel fry	weight (g)				
	body length (cm)				
adult eel	weight (g)				
	body length (cm)				

【Notes】:

1. The data of weight and length of Japanese eel into aquaculture ponds are entered by glass eel, eel fry and adult eel, respectively.

2. The data entered can be either mean value or figures in certain ranges (e.g., XX – YYg or cm). If mean value is available, it should be clearly mentioned in the comments by Members that the mean value of weight and length figures are based on biological or administrative standards or figures obtained from industry associations, etc.

3. When there are no relevant data or data is not available, "-" should be entered. When data is identified as zero, "0" should be entered.

4. "Body length" is the length of a fish measured from the tip of the snout to the posterior end of the last vertebra.

○Comments by Members:

*19 Because the eel culture industry in Chinese Taipei has some characteristics, such as several breeding stages and longer seeds stocking time, there are no available statistics for mean value of weight and length of Japanese eel.

*20 According to the statistic of Customs Administration, Ministry of Finance, the CCC(Import and Export Commodity Classification of Chinese Taipei) codes 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)].

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

(* Please fill in data sources and/or methoods to collect or estimate the data entried in from format 1 to format 14 respectively.)

1. Catch of glass eel	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 (Anguilla spp) but it may possibly cover a little of other eel species. The original unit for catch of glass eel is PCs and it has been conversed 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.
2. Catch of eel fry (kuroko)	There are no available statistics for eel fry fishing fisheries in Chinese Taipei.
3. Catch of wild adult eel	There are no available statistics for wild adult eel fishing fisheries in Chinese Taipei.
4. Fishing effort on glass eel	The number of fishing vessel, which is authorized to catch glass eel.
5. Fishing effort on eel fry (kuroko)	There are no available statistics for eel fry fishing fisheries in Chinese Taipei.
6. Fishing effort on wild adult eel	There are no available statistics for wild adult eel fishing fisheries in Chinese Taipei.
7. Input of eel seeds 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.
8. Aquaculture production	
9. 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.

10. Import of eel seeds	The data of importation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of Chinese Taipei) 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)].
11. Import of eel and eel products	The data of exportation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of Chinese Taipei) code are 03019210101(Live Japanese eel), 16041700125(Prepared eel), 16041910130(Roasted eel), 03019210904(Anguilla spp.), 03019929307(Anguilla australis) and 03019210209(Anguilla marmorata). Besides, since 2013, the CCC code of Prepared eel has been changed as 16041700116 and Roasted eel as 16041700125.
12. Export of eel seeds	The data of exportation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of Chinese Taipei) 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)].
13. Export of eel and eel products	The data of exportation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of Chinese Taipei) code are 03019210101(Live Japanese eel), 16041700125(Prepared eel), 16041910130(Roasted eel), 03019210904(Anguilla spp.), 03019929307(Anguilla australis) and 03019210209(Anguilla marmorata). Besides, since 2013, the CCC code of Prepared eel has been changed as 16041700116 and Roasted eel as 16041700125.
14. Mean value of wight and length of Japanese eel	The data of exportation is derived from the statistic of Customs Administration, Ministry of Finance. The CCC(Import and Export Commodity Classification of Chinese Taipei) codes 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)].

附件 9

Summary Table of Conservation and Management Measures for Eels (China)

Attachment 10

Eel aquaculture		Description
Condition of eel aquaculture business	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses : Decree of the Ministry of Agriculture of the People's Republic of China "Measures for License Issuance and Registration of Aquaculture in Water Areas and Tidal Flats"
Management body	Fisheries Agency	
Contents of management measures		
① Upper limit for the number of licenses	Central/By local authority/None	License holders: company/facility/others ( ) Data not available
② Upper limit for scale of facilities	Yes/No	
③ Upper limit for input of *Anguilla japonica*	Central/By local authority/By individual/None	This measure will be further considered for future Informal Consultations including complementary measures, possibly taking into account scientific advice from the Scientific Meeting.
④ Upper limit for input of other eels	Central/By local authority/By individual/None	This measure will be further considered for future Informal Consultations including complementary measures , possibly taking into account scientific advice from the Scientific Meeting.
⑤ Size limit for input glass eels	Central/By local authority/None	Description of regulation:
⑥ Time closure of glass eels input	Central/By local authority/None	Description of regulation:
⑦ Other regulation	Central/By local authority/None	Description of regulation:
⑧ Body to manage and monitor input of glass eels	Prefectural or provincial eel association	Monitoring measure: Farmers shall report their input amount to the prefectural or provincial eel association by the end of glass eel input.
⑨ Body to manage and monitor production amount	Prefectural or provincial eel association	Monitoring measure: Farmers shall report their production amount to the prefectural or provincial eel association every year.
⑩ Penalty	Yes/No	Penalty for aquaculture operation without licenses: Prohibition of aquaculture
Voluntary measures by industry		

Glass eel fishery		Description
Condition of glass eel fishery	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses: Notice on strengthening the management of eel fry fishing in the Yangtze Estuary no catch management zone and adjacent waters in 2022
Management body	Local authority	
Contents of management measures		License holders: individual/association/others( ): From January 1, 2021, the issuance of special fishing licenses for eel fry in the waters within the Yangtze River Estuary has been ceased. At the same time, it is stipulated that in the fishable waters, the number of special fishing licenses for glass eel in 2022 shall not exceed that of 2021, the number of net gear per license shall not exceed 100, and the number of net openings per net gear shall not exceed 1.
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation: From January 1, 2021, the issuance of special fishing licenses for eel fry in the waters within the Yangtze River Estuary has been ceased. At the same time, it is stipulated that in the fishable waters, the number of special fishing licenses for glass eel in 2022 shall not exceed that of 2021.
② Regulation on fishing gear	Yes/No	Description of regulation: The number of net gear per license shall not exceed 100, and the number of net openings per net gear shall not exceed 1.
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit:
⑤ Time closure of glass eel catch	Central/By local authority/None	Description of regulation: In several coastal fishing provinces, fishing is allowed from the beginning of November to the end of April of the next year.
⑥ Body to manage and monitor catch amour	Local authority	Monitoring measures: Fishers shall report catch data to the local authority and local authorities may report data to the Fishery and Fisheries Administration of the Ministry of Agriculture and Rural Areas.
⑦ Penalty	Yes/No	Penalty for fishing operation without licenses: In case of gross violation (using the net with a mesh size less than 2.5 cm), criminal responsibility will be investigated according to the law, less than 3 years of imprisonment. 根据《浙江省渔业管理条例》和《杭州市渔业资源保护管理规定》，鳗苗属于有重要经济价值的水产苗种，须在取得专项捕捞许可证前提下，方可实施捕捞作业。如未取得专项捕捞许可，擅自进行捕捞鳗苗的，将依照无证捕捞依法予以查处，情节严重的（因捕捞鳗苗涉嫌使用网目尺寸小于2.5厘米的禁用网具，捕捞鳗苗价值超过500元），将依法追究刑事责任。
Voluntary measures by industry		

Adult eel fishery		Description
Condition of adult eel fishery	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses:
Management body	Local authority	
Contents of management measures	Yes/No	License holders: individual/association/others( ) Total number of licenses issued: Number of fishers:
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation:
② Regulation on fishing gear	Yes/No	Description of regulation:
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit:
⑤ Time closure	Central/By local authority/None	Description of regulation:
⑥ Body to manage and monitor catch amount		Monitoring measures:
⑦ Penalty	Yes/No	Penalty:
Voluntary measures by industry		

Additional information

Summary Table of Conservation and Management Measures for Eels (Japan)

Eel aquaculture		Description
Condition of eel aquaculture business	none/license required	
Ground for license, etc. ※	Legistlation/Other scheme	Name of Legislation/other scheme requiring licenses : Inland Water Fishery Promotion Act enacted on June 27. 2014 and Order for enforcement of Inland Water Fishery Promotion Act established on October 1st 2014. Establishment date : June 27, 2014
Management body	Fisheries Agency	
Contents of management measures		
① Upper limit for the number of licenses	Central/By local authority/None	License holders: company/facility/others ( ) Total number of Licenses issued: 451 for *A. japonica* , 103 for eels other than *A. japonica* (November 2022 - October 2023, as of November 1, 2022)
② Upper limit for scale of facilities	Yes/No	Description of regulation: total area of aquaculture ponds written in a permit.
③ Upper limit for input of *Anguilla japonica*	Central/By local authority/By individual/None	The quota for each individual farmer is set within the total upper limit. Total upper limit for *A. japonica* is 21.7 tons.
④ Upper limit for input of other eels	Central/By local authority/By individual/None	The quotat is set for each individual farmer within the total upper limit. Total upper limit for eels other than *A. japonica* is 3.5 tons.
⑤ Size limit for input glass eels	Central/By local authority/None	Description of regulation:
⑥ Time closure of glass eels input	Central/By local authority/None	Description of regulation:
⑦ Other regulation	Central/By local authority/None	Description of regulation: - When farmers sell their farmed eels to other farmers' aquaculture operation, sellers shall provide the document about trade records to buyers. - In case farmers conduct aquaculture operation of eels other than A. japonica, they are prohibited to release the eels to waters outside of their facility. The farmers shall take necessary measures to prevent their escape.
⑧ Body to manage and monitor input of glass eels	Fisheries Agency	Monitoring measure: Farmers shall report their input amount to the Fisheries Agency every month.
⑨ Body to manage and monitor production amount	Fisheries Agency	Monitoring measure: Farmers shall report their production amount to the Fisheries Agency every month.
⑩ Penalty	Yes/No	Penalty for aquaculture operation without licenses: Less than 3 years of imprisonment or a penalty of less than 2 million yen
Voluntary measures by industry		

Glass eel fishery		Description
Condition of glass eel fishery	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses : Prefectural Fisheries Coordination Regulation based on the Fisheries Act and the Act on the Protection of Fisheries Resources
Management body	Local authority	
Contents of management measures		License holders: individual/association/others ( ) Total number of licenses issued: 4,467 Number of fishers: 16,645 (2021-2022 fishing season)
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation: License holders are limited to Fisheries Associations, members of Fisheries Associasions, eel farmers and so on.
② Regulation on fishing gear	Yes/No	Description of regulation: Limitation of fishing gears and fishing types are introduced in each prefecture.
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit: Catch quota is set based on historical catch amount, area of aquaculture pond and so on.
④ Size limit	Central/By local authority/None	Description of limit: Size limit is introduced in each prefecture.
⑤ Time closure of glass eel catch	Central/By local authority/None	Description of regulation: In many fishing grounds, fishing is allowed from December to April in the following year.
⑥ Body to manage and monitor catch amou	Local authority	Monitoring measures: Fishers shall report catch data to the local authority and local authorities may report data to the Fisheries Agency.
⑦ Penalty	Yes/No	Penalty for fishing operation without licenses: Less than 6 months of imprisonment or a penalty of less than 100,000 yen (After December 2023, the penalty for catching glass eels without a fishing permit will be an imprisonment of up to 3 years or a fine of not more than 30 million yen)
Voluntary measures by industry		

Adult eel fishery		Description
Condition of adult eel fishery	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses : Prefectural Fisheries Coordination Regulation and other regulations based on the Fisheries Act and the Act on the Protection of Fisheries Resources
Management body	Local authority	
Contents of management measures	Yes/No	License holders: individual/association/others( ) Total number of licenses issued: Number of fishers:
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation:
② Regulation on fishing gear	Yes/No	Description of regulation: Limitation of fishing gears and fishing types are introduced in each Prefectures.
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit: Size limit is introduced in each prefecture. Lower size limit is 20cm - 30cm in most regions.
⑤ Time closure	Central/By local authority/None	Description of regulation: Time closure is introduced in each prefecture, mainly from October to March when eels migrate from river to sea for spawning.
⑥ Body to manage and monitor catch amount		Monitoring measures:
⑦ Penalty	Yes/No	Penalty: Less than 6 months of imprisonment or a penalty of less than 100,000 yen for violation of Regional Fisheries Coordination Regulation. Less than 1 year of imprisonment or a penalty of less than 500,000 yen for violation of Instruction by Fisheries Adjustment Commission.
Voluntary measures by industry		In July 2018, National Federation of Inland Waters Fishing Ground Management Commissions and National Federation of Inlandwater Fisheries Cooperatives jointly adopted the resolution on promoting nationwide conservation of eels migrating from river to sea for spawning.

Additional information

Summary Table of Conservation and Management Measures for Eels (Korea)

Eel aquaculture		Description
Condition of eel aquaculture business	none/license required	Article 43 of the Aquaculture Industry Development Act (Authorization of farming) stipulates that eel farming is subject to authorization (enacted on August 27, 2019 and took effect on August 27, 2020)
Ground for license, etc. ※	Legistlation/Other scheme	Article 43 of the Aquaculture Industry Development Act (Authorization of farming) stipulates that eel farming is subject to authorization (enacted on August 27, 2019 and took effect on August 27, 2020)
Management body	System management: Inland Fishery Industry Team, Aquaculture Industry Division, Ministry of oceans and	Acceptance of a report: Local authority
Contents of management measures		
① Upper limit for the number of licenses	Central/By local authority/None	License holders: company/facility/others/(Individual) Total number of reports: 589 as of 2022
② Upper limit for scale of facilities	Yes/No	Description of regulation:
③ Upper limit for input of *Anguilla japonica*	Central/By local authority/By individual/None	Fresh Water Eel Culture Fisheries Cooperative composed of eel farmers self-regulates the input: Upper limit for *A. japonica* input is set at 11.1 tons.
④ Upper limit for input of other eels	Central/By local authority/By individual/None	Fresh Water Eel Culture Fisheries Cooperative composed of eel farmers self-regulates the input: Upper limit for input of eels other than *A. japonica* is set at 13.2 tons in total.
⑤ Size limit for input glass eels	Central/By local authority/None	Description of regulation: Fisheries Resource Management Act article 35, Enforcement Decree article 18, Enforcement Regulation article 17 / a glass eel to weigh below 0.3 grams
⑥ Time closure of glass eels input	Central/By local authority/None	Description of regulation:
⑦ Other regulation	Central/By local authority/None	Description of regulation:
⑧ Body to manage and monitor input of glass eels	Fresh Water Eel Culture Cooperatives	Monitoring measure: Fresh Water Eel Culture Fisheries Cooperative investigate by farm
⑨ Body to manage and monitor production amount	Fresh Water Eel Culture Cooperatives	Monitoring measure: legislation to be enacted through amendment of "Fishery products distribution management and support Act" (2 Dec 2016) and Enforcement regulations (Jun 2017) to distribute eels at designated locations, Enforcement Regulation article 7.2(2 July 2018)
⑩ Penalty	Yes/No	Penalty for aquaculture operation without license: penalty of maximum 5 million won Penalty for excess of input limit: None If not distributed at the designated place: imprisonment of 2 years or less or fine of 20 million won or less
Voluntary measures by industry		Compliance with the "Joint Statement" agreed by the Informal Eel meeting partipants

Glass eel fishery		Description
Condition of glass eel fishery	none/license required	Approval required/ Inland Water Fishery Act, Fisheries Act
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses : Fisheries Act Article 41.3 (glass eel stow-net fishery), Inland Water Fishery Act Article 9(Inland Water seed harvest approval) Establishment date or estimated date to be established : Fisheries Act enforced 23 Apr 2010, Inland Water Fishery Act enforced 29 Jul 2000 (approval required since Inland Water Fisheries Development Promotion Act(09 Jul 1976))
Management body	System Management: Inland Fishery Industry Team, Aquaculture Industry Division, Ministry of oceans and	Approval: Local authority
Contents of management measures		License holders: individual/association/others( ) Total number of licenses issued: Number of approval: 517(the total number including not only glass eel but all other seed capture) as of 2022
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation:
② Regulation on fishing gear	Yes/No	Description of regulation: glass eel stow-net fishery(Enforcement Decree of the Fisheries Act Article 26)
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit:
⑤ Time closure of glass eel catch	Central/By local authority/None	Description of regulation:
⑥ Body to manage and monitor catch amou	Central and local authority	Monitoring measures: controlling unauthorized captures of glass eels
⑦ Penalty	Yes/No	Penalty for fishing operation without licenses: Less than 1 years of imprisonment or a penalty of less than 10 million
Voluntary measures by industry		

※ Attach the legal text, if there is an English version.

Adult eel fishery		Description
Condition of adult eel fishery	none/license required	Approval required
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses : Inland Water Fishery Act Article 6, 9 and 11 Establishment date or estimated date to be established : Inland Water Fishery Act(29 Jul 2000)
Management body	System Management: Inland Fishery Industry Team, Aquaculture Industry Division, Ministry of oceans and	Approval: Local authority
Contents of management measures		License holders: individual/association/others( ) Total number of licenses issued: Number of fishers: Approval is issued not by fish species but by type of fishing gears, thus, the exact number cannot be confirmed.
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation:
② Regulation on fishing gear	Yes/No	Description of regulation: pound net, longline, fish trap
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit: 15cm~45cm
⑤ Time closure	Central/By local authority/None	Description of regulation: six months closure(1 October ~ 31 March)
⑥ Body to manage and monitor catch amou	Central and local authority	Monitoring measures: controlling unauthorized captures of adult eels
⑦ Penalty	Yes/No	Penalty for fishing operation without licenses: Less than 1 years of imprisonment or a penalty of less than 10 million
Voluntary measures by industry		

※ Attach the legal text, if there is an English version.

Additional information

Summary Table of Conservation and Management Measures for Eels（Chinese Taipei）

Eel aquaculture		Description
Condition of eel aquaculture business	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses：Regulations for Input Management of Eel Aquaculture Establishment date or estimated date to be established：November 14, 2014
Management body	Council of Agriculture	
Contents of management measures		
① Upper limit for the number of licenses	Central/By local authority/None	License holders: company/facility/others (Eel farmer) Total number of Licenses issued: 420 licenses in 2022-
② Upper limit for scale of facilities	Yes/No	Description of regulation:
③ Upper limit for input of *Anguilla japonica*	Central/By local authority/By individual/None	
④ Upper limit for input of other eels	Central/By local authority/By individual/None	
⑤ Size limit for input glass eels	Central/By local authority/None	Description of regulation:
⑥ Time closure of glass eels input	Central/By local authority/None	Description of regulation:
⑦ Other regulation	Central/By local authority/None	Description of regulation:
⑧ Body to manage and monitor input of glass eels	Fisheries Agency/ Local authority/Taiwan Eel Farming Industry Development Foundation/Local eel	Monitoring measure: The eel farmer should report the input amount of eel within 10 days after inputting eel.
⑨ Body to manage and monitor production	Fisheries Agency/ Local authority/Taiwan Eel Farming Industry Development Foundation/Local eel	Monitoring measure: The eel farmer's production should not exceed the input amount.
⑩ Penalty	Yes/No	Penalty for aquaculture operation without licenses:A fine of between NTD$ 30,000 and NTD$ 150,000. Penalty for excess of input limit: A fine of between NTD$ 30,000 and NTD$ 150,000.
Voluntary measures by industry		

Glass eel fishery		Description
Condition of glass eel fishery	none/license required	Most of the catching glass eels are from fishing vessel, so main management measures are for vessel. Vessels approved by
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses : Fisheries Act/Regulations on the Restricted Fishing Seasons for Elvers/ Directions of the coastal Elvers Fishing Establishment date or estimated date to be established : Existing legislation/September 9, 2013/ November 27,
Management body	Council of Agriculture	
Contents of management measures		License holders: individual/association/others（Vessel） Total number of licenses issued:322 Number of
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation:
② Regulation on fishing gear	Yes/No	Description of regulation: Vessel: stow nets driven by vessel, set net etc. Coastal fishing: stow net driven by manpower, set net etc.
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit:
⑤ Time closure of glass eel catch	Central/By local authority/None	Description of regulation:Between March 1 and October 31 every year.
⑥ Body to manage and monitor catch amount	By local authority and local fishermen's association	Monitoring measures:The glass eel fishermen are advised to report the catch amount to local fishermen's association.
⑦ Penalty	Yes/No	Penalty for fishing operation in time closure: A fine of between NTD$ 30,000 and NTD$ 150,000.
Voluntary measures by industry		

※ Attach the legal text, if there is an English version.

Adult eel fishery		Description
Condition of adult eel fishery	none/license required	
Ground for license, etc. ※	Legislation/Other scheme	Name of Legislation/other scheme requiring licenses："Fishing bans and closed seasons"area Establishment date or estimated date to be established：Since 2013
Management body	Local authority	
Contents of management measures		License holders: individual/association/others( ) Total number of licenses issued: Number of fishers:
① Upper limit for the number of licenses	Central/By local authority/None	Description of regulation:
② Regulation on fishing gear	Yes/No	Description of regulation:According to each management measures of"fishing bans and closed seasons" area, it is
③ Upper limit for catch	Central/By local authority/By individual/None	Description of limit:
④ Size limit	Central/By local authority/None	Description of limit: Excess of the length of 8cm elver
⑤ Time closure	Central/By local authority/None	Description of regulation: The entire year in closed eel fishing area.
⑥ Body to manage and monitor catch	By local authority	Monitoring measures: Prohibited the catch of young and adult eels in 41 rivers in Taiwan.
⑦ Penalty	Yes/No	Penalty for fishing operation in "fishing bans and closed seasons" area:A fine of between NTD$ 30,000 and NTD$ 150,000.
Voluntary measures by industry		

※ Attach the legal text, if there is an English version.

Additional information

附件 10

Attachment 11

Work Plan for the Informal Consultation
(2023-2024 season)

By the end of October 2023

Submission of data on catch and input of glass eels in 2022-2023 input season

March-April 2024 (TBD)

The 3rd Scientific Meeting

May-June 2024 (TBD)

The 17th meeting of the Informal Consultation

By the end of April 2024

- Submission of data and Information in accordance with the Standard Working Formats for Eel Statistics (provisional)
- Submission of revised Summary Table of Conservation and Management Measures for Eels

【Related international events：】

●(TBD)

Intersessional working group on eels established under CITES Animal Committee with the mandate to:

- review the summary of the responses to Notification to the Parties No. 2021/018 and Notification to the Parties No. 2023/062 on eels, including any updates provided under Decision 19.218 and any recommendations from the Secretariat;
- review the potential use of source code R (ranching) for specimens of European eel (*A. anguilla*) from aquaculture production systems and the potential risks and benefits of reintroducing seized, live European eels to the wild; and
- make draft recommendations on the conservation and management of European eel for consideration by the Animals Committee at its 33rd meeting.

●6 - 10 November 2023

CITES Standing Committee in Geneva (Switzerland) will consider:

by the Secretariat (ICJE-16/INFO/03),

- the results of the study on the volume and pattern of trade, sources of supply and identification methods of live eels in aquaculture in particular (SMJE-1/INFO/02), and
- making appropriate recommendations on ensuring sustainable trade in *Anguilla spp.*, including Japanese eel for consideration by CITES COP20.

附件 11

Attachment 12

Joint Press Release

July 27th, 2023

On the occasion of the Sixteenth Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species (Informal Consultation),

Fisheries Management and Scientific Research Departments of the People's Republic of China, the Fisheries Agency of Japan, the Ministry of Oceans and Fisheries of the Republic of Korea and the Fisheries Agency of Chinese Taipei (hereinafter referred to as "Participants"),

Recalling that People's Republic of China, Japan, the Republic of Korea and Chinese Taipei are all Asia-Pacific Economic Cooperation (APEC) Economies;

Recognizing that the 2014 Joint Statement issued at the Seventh Meeting serves as a stepping stone towards further cooperation in the East Asian region,

Recalling every effort towards sustainable use of eel species after 2014 including the limit on eel seeds input into aquaculture ponds and proposal on the establishment of the Alliance for Sustainable Eel Aquaculture (ASEA),

Noting the decisions 19.218 to 19.221 of the 19th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES COP19),

Noting also the eel relevant documents (AC32 Sum.2) adopted at the 32nd Meeting of CITES Animal Committee (AC32),

Sharing the view on importance of cooperating towards the 77th meeting of CITES Standing Committee (SC77), the 33rd meeting of the Animals Committee (AC33) and the 20th Meetings of CITES COP,

Mindful that Participants are willing to cooperate under the Framework of APEC Ocean and Fishery Working Group (OFWG);

Have reaffirmed the following common views:

system was introduced to eel aquaculture, under the Inland Water Fishery Promotion Act. The amount of initial input of eel seeds is restricted by eel species and allocated for each individual farmer under this Act. In April 2020, the total input of eel seeds in Japan getting close to the upper limit, the Fisheries Agency of Japan directed prefectural governments to halt the catch of glass eels. Since 2006, continuous efforts have been made for the purpose of the creation and conservation of a favorable riverine environment, based on the concept of "Nature-oriented river works" representing conservation and regeneration of the environment as habitat, growing and spawning grounds that rivers intrinsically have, which has become a basic idea for management of river.

The number of prefectures which prohibit the catch of silver eel is increasing, bearing in mind the resolution taken by National Federation of Inland Waters Fishing Ground Management Commissions and National Federation of Inland water Fisheries Cooperatives in 2018 take measures for conservation of silver eels in all prefectures as soon as possible. In 2019, the Fisheries Agency of Japan launched a project in order to improve a traceability of Japanese eel from a catch of glass eel through to an input into aquaculture pond as well as a research project including resource trend analysis and spawning migration tracking with the goal of future development of a Japanese eel stock assessment. In April 2022, Japan held the 1st Scientific Meeting with attendance of China, Korea, and Chinese Taipei, inviting European eel experts from the International Council for the Exploration of the Seas (ICES) and Zoological Society of London (ZSL). In accordance with the amendment of the Fishery Act in December 2020, the government of Japan considerably strengthened the penal provisions in order to prevent poaching by giving great disadvantage to offenders. After December 2023, the penalty for catching glass eels without a fishing permit will be an imprisonment of up to 3 years or a fine of not more than 30 million Japanese yen. In December 2020, Act on Ensuring the Proper Domestic Distribution and Importation of Specified Aquatic Animals and Plants was enacted to prevent the distribution of illegally harvested, unregulated and unreported aquatic animals and plants by requiring the communication of handling information among distributors and traders, the preparation and preservation of transaction records, and the attachment of documents attesting that the product was harvested legally when it is imported or exported. The distribution of domestically harvested glass eel will also be subject to the obligations under this law from December 2025. Japan implements the Regulations on Export Approvals for Glass Eels to promote the sustainable use of eel species under international cooperation. In accordance with the Regulations, before an export approval, the Fisheries Agency of Japan confirms appropriateness of the export of glass eels for conservation and management of eel species, including all international agreements and arrangements that Japan has participated in are fully complied.

Republic of Korea:

Time closure and size limit of catch were introduced by the government in January 2017 and have been in force since July 2017 for the management of eel stocks. Eel fishery is prohibited from 1 October to 31 March in the following year. And the catch of eels between 15cm and 45cm is prohibited

all year long. Korea also changed the administrative system for eel aquaculture operation from the "reporting system" to a "permission system." The relevant legislation that provided a legal background for this change was established on August 27, 2019 and took effect as from August 28, 2020.

In 2018, Korea developed and installed "fishway (pathway or ladders)" for eels in some of the artificial structures such as estuary banks and sea walls which prevent or block the natural migration of eels, in order to provide more favorable environments to eels. These pathways have been in good use ever since. Korea plans to install additional fish ladders in the mid-to-long term. Korea will continue this research or initiative in 2023 and remains committed to exploring possible conservation and management options for eels. The medium to long-term plans also include the improvements in relevant systems and designation of specialized research agencies so that eel stock assessments can be undertaken nation-wide, in order to conserve and protect the Japanese eel stock.

Chinese Taipei:

With regard to the glass eel fishing, although the traditional fishing season for glass eel is from October to April, glass eel fishing is only permitted from November to February in accordance with the 2013 Regulations on the Restricted Fishing Seasons for Elvers, subject to adjustment based on annual migrant pattern and/or for scientific purposes. A license system has also been introduced to vessels fishing for glass eel.

With a view to protect the habitats of eels, the catch of young and adult eels is managed by local governments, and the fishing for eels has been prohibited in 41 rivers. For example, Yilan County, the traditional major glass eel harvest region, has prohibited the catch of young and adult eels in all its rivers so as to conserve eel species.

As for the export control, based on the Foreign Trade Act and the regulations established pursuant to this Act, export of glass eels is prohibited from November to March.

With regard to the control of eel farming activities, the Regulations for Input Management of Eel Aquaculture has been promulgated since November 2014 and amended as appropriate to enhance the control of eel farming activities. As per these Regulations, the Fisheries Agency will review the relevant requirements and announce the input amount of glass eels annually, and each eel farmer is subject to the control and management of license system and individual input limit. For Japanese eel and other relevant eel species, the total upper limit for glass eel input are both set at 10 metric tons per year.

For stock enhancement, the release of Japanese eel larvae was from the confiscated glass eels to rivers, and the part of those eels was also used for scientific research.

(2) Participants renewed their commitments to make the utmost efforts as follows;

- to further strengthen conservation and management measures of Japanese eel stock and other relevant eel species and closely work together in this regard;

- to promote and collaborate on scientific research on Japanese eel in line with Terms of References for Task Team 1 & 2 of Scientific Activities and Collaborative Research on Japanese Eel Established under the Scientific Meeting;
- to hold the 3rd Scientific Meeting in 2024 spring season, in order to share scientific knowledge and experience, as well as to provide scientific advice for conservation and management measures of the species;
- to adopt either of the following measure(s), but not limited to one measure if situation allows: to enhance conservation on key habitat of Japanese eel and/or to decrease the capture and utilization of wild Japanese eel;
- to restrict initial input of glass eels and eel fries of Japanese eel taken from the wild into aquaculture ponds in 2023-2024 input season up to 80% of that of the 2013-2014 input season;
- to take every possible measure not to increase the amount of initial input of seeds of eel species other than Japanese eels from the level stated in the 2014 Joint Statement;
- to consider complementary measures intersessionally for the discussion and the adoption at the next Informal Consultation, possibly taking into account scientific advice from the Scientific Meeting;
- to make continued efforts individually and/or jointly to improve traceability and transparency in domestic and international eel trade, taking into consideration of the outcomes of the CITES-COP 19 and AC32;
- to closely cooperate with other international instruments;
- to consider possible establishment of a legally binding framework, such as regional or subregional fisheries management organization or arrangement;
- to further cooperate towards SC77, AC33, CITES-COP20; and
- to encourage voluntary actions to be taken by the private sector in line with the above-mentioned measures.

Attachment:
- Eel Statistics on catch and input of glass eels and trade of any stages of eels compiled from the Standard Working Formats for statistics of glass eel, eel fry and adult eel on each stage, and
-Summary table of conservation and management measures for eels.

Attachm 附件 12

The 16th Meeting of the Informal Consultation on International Cooperation for Conservation and Management of Japanese Eel Stock and Other Relevant Eel Species

Tentative Participants List

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附件 13

「ウナギの国際的資源保護・管理に係る第 16 回非公式協議」の結果についての共同発表について

水産廳令和５年７月 27 日

(https://www.jfa.maff.go.jp/j/press/sigen/230727.html)

水産庁は、この度、「ウナギの国際的資源保護・管理に係る第 16 回非公式協議」の結果について、我が国、中国、韓国及びチャイニーズ・タイペイの４者で共同発表しますのでお知らせします。

1.ウナギの国際的資源保護・管理に係る非公式協議

（1）経緯

ニホンウナギは、マリアナ海溝周辺海域で生まれた後、我が国を含む東アジア沿岸域に来遊し、その稚魚（シラスウナギ）は主に養殖用種苗として利用されています。このため、本資源の持続可能な利用のためには、ニホンウナギの漁獲や養殖等を行う関係国・地域が協力していく必要があり、これらの関係国・地域間で、平成 24 年９月から「ウナギの国際的資源保護・管理に係る非公式協議（以下「協議」という。）」が開催され、議論が重ねられてきました。

平成 26 年９月の第７回協議では、我が国、中国、韓国及びチャイニーズ・タイペイの４者の水産当局間で、

(ア)養殖池への種苗の池入れ量制限

(イ)保存管理措置の適切な実施を確保するための養鰻管理団体の設立

(ウ)法的拘束力のある枠組み設立の可能性の検討等を内容とした共同声明の発出

に至り、これまで協議を継続しているところです。

（2）第 16 回協議について

「ウナギの国際的資源保護・管理に係る第 16 回非公式協議」では、平成 26 年に発出した共同声明の遵守状況や共同声明以降に各国・地域がとった管理措置のレビュー、来漁期分（令和 5 年 11 月から令和 6 年 10 月）の池入数量上限、各国・地域のシラスウナギの採捕・池入れ数量及びウナギの貿易に関する統計の作成及び整備、第２回科学者会合の結果等について議論及び確認が行われました。

これらを踏まえ、この度、我が国、中国、韓国及びチャイニーズ・タイペイの４者間で協議の結果を共同発表することで一致しました。

2.共同プレスリリースの概要

(1) 平成 26 年の共同声明発出後、各国・地域がとってきた保存管理措置についてのレビュー

(2) 各国・地域は、次の取組のために最大限努力する責務を再確認した。

ア. 来期分（令和 5 年 11 月から令和 6 年 10 月）のシラスウナギの池入数量上限は今漁期と同量（日本は、ニホンウナギ：21.7 トン、その他のウナギ種：3.5 トン）とする（※）。

イ. ニホンウナギの重要生息域の保全の強化及び/又は天然のニホンウナギの採捕・利用の削減を行う。

ウ. ア及びイ等の取組について、科学者会合による科学的助言を可能な限り考慮した上で、第 17 回非公式協議において議論し採択するため、閉会期間中に補足的な措置を検討する。

エ. 科学者会合の下に設置されているニホンウナギの科学的活動及び共同研究の２つのタスクチームの付託事項に従って、ニホンウナギの共同研究における協力を促進する。

オ. ウナギ類の保存管理措置に関する科学的な助言を提供するとともに、科学的知見や経験を共有するための第 3 回科学者会合を令和

6 年春頃に開催する。

（※）中国は、ニホンウナギの保存管理措置は池入数量制限に限るべきではなく、各国・地域の実情に基づいた補足的な措置を採用すべきと主張し、本件については協議継続となった。

(3) 各国・地域のシラスウナギの採捕・池入れ量及びウナギの貿易に関する

附件 14

Impacts of China’s ten-year fishing ban on the Yangtze River on Japanese eel resources

I. Introduction to the 10-year fishing ban on the Yangtze River

The ten-year fishing ban on the Yangtze River is a key move to reverse the deterioration of the Yangtze River's ecological environment. China's Ministry of Agriculture and Rural Affairs (MARA) issued a notice requesting that natural waters in the mainstream and important tributaries of the Yangtze River should be subject to a 10-year fishing ban starting from January 1, 2021, during which productive fishing for natural fishery resources will be prohibited. A total of 111,000 fishing boats were withdrawn from the Yangtze River, and 230,000 fishers were resettled and re-employed. On January 1, 2021, a decision was further announced to expand the area covered by the fishing ban in the Yangtze River estuary, pushing its easternmost boundary from 122° east longitude to 122°15’ east longitude, with more than 2,000 square kilometers expanded.

The expansion of the fishing ban management area in the Yangtze River estuary (easternmost boundary pushed from yellow line to red line)

II. Glass eel fishery management under the Yangtze River 10-year fishing ban

1.Management of glass eel fishing license

Since the implementation of the fishing ban, China has continuously strengthened the qualification examination and management of glass eel fishing licenses, and the restrictions on the size and number of fishing gears. Since the implementation of the fishing ban on January 1, 2021, the issuance of glass eel fishing licenses has been ceased in the fishing ban management area. At the same time, in the fishable waters, many provinces have introduced policies to limit the scale of glass eel fishing.

For example, Zhejiang province stipulated that the scale of fishing shall not exceed the previous year's level. Shanghai stipulated that the number of glass eel fishing licenses in 2022 shall not exceed the number in 2021, the authorized gears per license shall not exceed 20 sets.

2. Management of eel fishing activities

In addition, China has increased the penalties for fishing activities for glass eel without a license or with prohibited fishing gear, and will be held accountable for such acts. For example, in Zhejiang Province, according to the "Regulations on Fisheries Management of Zhejiang Province" and "Provisions on Management of Protection of Fishery Resources in Hangzhou City", glass eel is defined as aquatic species with important economic value, and fishing activities can only be carried out under the premise of obtaining the fishing license. Unauthorized fishing on glass eel, i.e., fishing without a special fishing license, the fisher will be investigated and punished according to the law in accordance with the unlicensed fishing. In serious cases, criminal punishment will be imposed in accordance with the law. Those who have fishing licenses but fish with illegal fishing gears will have their fishing licenses revoked.

III. Impacts of the Yangtze River fishing ban on eel resources

The most significant value of the fishing ban on the Yangtze River to the

eel resources is that it has strengthened the supervision of illegal fishing of glass eel and the restriction of the fishing area, and further protected the eel migratory routes by expanding the fishing ban management area in the Yangtze River estuary, which is one of the most important corridors for ascending glass eels. This effectively protects the glass eel in this area and improves the success rate of their migration to the Yangtze River waters, which can effectively help replenish the adult eel resources. At the same time, it also protects the adult eels from passing through this area and descending into the sea to the spawning grounds for reproduction. This will greatly contribute to the protection of eel resources.

Due to complexity of eel's life cycle and resource variation, the detailed impacts of the Yangtze River fishing ban on the eel resources needs to be continuously monitored and researched based on the scientific investigation in a longer term. In particular, since the main fishing area of glass eel has been shifted to the offshore area beyond the Yangtze River estuary, the impact on eel migration and habitat needs to be evaluated comprehensively for a period of time. In addition, factors such as the climate change and the marine environment also have a great impact on the glass eel resources variation, therefore it is necessary to evaluate the impact of the Yangtze River fishing ban by comprehensively considering

the effects of these factors, and to carry out continuous monitoring and in-depth investigation.