



# Convention on the Conservation of Migratory Species of Wild Animals

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## First Range States Workshop on the European Eel

*Galway, Ireland, 13 – 14 October 2016*

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UNEP/CMS/Eels WS1/Report

### REPORT OF THE FIRST RANGE STATES WORKSHOP ON THE EUROPEAN EEL

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## Agenda Item 1: Welcoming remarks

1. **Mr. Bradnee Chambers, the Executive Secretary of the Convention on Migratory Species**, officially opened the First Range States Workshop on the European Eel.
2. Welcoming the workshop participants to Galway, Ireland, **Professor Ronán Long (Law of the Sea Group, National University of Ireland, Galway)** expressed his pleasure that this gathering was being held in the “City of Tribes”.
3. **Mr. Chambers** noted the sheer beauty of Galway, the Cliffs of Moher and the iconic species that characterized this area. He thanked the Sargasso Sea Commission (SSC) for organizing this meeting with the Convention, and said he was looking forward to learning how to increase CMS involvement to help this species. Species, such as the European Eel, that were listed under CMS Appendix II were afforded protection because Appendix II required Range States to put in place appropriate strategies to collaborate with each other.
4. CMS had 124 Member States, with additional countries interested in engaging. The CMS Secretariat had a strategic plan using global targets for biodiversity linked to both the Aichi Targets and the Sustainable Development Goals (SDGs). While there was no compliance mechanism under CMS and it was a facilitative convention, CMS was looking at adopting a review mechanism.
5. At COP11 in Quito, CMS added the European Eel to Appendix II. The goal of CMS was to provide tools to preserve species and their habitat across their entire range. **Mr Chambers** looked forward to the discussion of what the CMS could actually do to help the European Eel, noting that CMS needed to go beyond simply listing species in need of conservation and must consider how it could be a tool to protect this iconic species.
6. SSC Executive Secretary, **Mr. David Freestone**, added his welcome. The Sargasso Sea was more than just an eel spawning habitat, and the SSC was working towards protection for the Sargasso Sea through a variety of international sectoral organizations such as the International Maritime Organization (IMO), the International Seabed Authority (ISA), and various Regional Fisheries Management Organizations (RFMOs). Two years before, the Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea had been signed by five Governments – there were now seven. The SSC was a creation of the Hamilton Declaration; it had a mandate to keep the health, productivity and resilience of Sargasso Sea under review.
7. This ecosystem was important for eels, and also for sea turtles, whales, billfish and a number of species endemic to the Sargassum as well as commercially important fish species such as tuna, wahoo and dolphins. Eel migration to the Sargasso Sea was a true wonder of nature. The SSC would like to see protection for the spawning area and the migration phase of the European Eel. The previous October, the SSC had sponsored a meeting in Maine focused on the American Eel, and had been working with the U.S. National Aeronautics and Space Administration (NASA) and its Jet Propulsion Laboratory to use satellite data and overlay it with other information such as the migration of eels and other species. Eels were a key component of the ecosystem of the Sargasso Sea.

## **Agenda Item 2: Discussion Panel on Conservation and Management of *Anguilla anguilla***

8. **Mr. Chambers** introduced the speakers on the first panel focused on the state of conservation management and scientific knowledge on the European Eel: Mr. Matthew Gollock; Mr. Alan Walker; Mr. Reinhold Hanel; Mr. Estibaliz Diaz; Mr. Willem Dekker; and Mr. Éric Feunteun.

9. Summarizing the scientific background paper which he had authored for the workshop, **Mr. Gollock** provided an overview of the 16 Anguillid species, where they were found, and their complex life stages. He highlighted that the various national populations of European eels represented a single spawning stock. The threats that the eel faced included potential impacts from climate change, currents, disease, pollution, barriers to migration, hydropower, habitat loss, lower lipid stores, exploitation and predation in ocean and fresh water. He noted that much of the conservation work had been in continental waters rather than in the open ocean.

10. **Mr. Gollock** focused on the challenge of how to prioritize limited resources. He noted that it was important to look at the species across their entire range and the regional capacity to manage 16 species of eels also had to be considered. The International Union for the Conservation of Nature (IUCN) Red List could be a useful prioritization tool.

11. **Mr. Gollock** discussed potential collaboration such as sharing and standardization of information and knowledge. He highlighted the dynamic that resulted from the European Union (EU) suspending its exports of European Eel following its inclusion in Appendix II of CITES; thus, exploitation of eels in North Africa, the Americas, and South-East Asia had increased, often in areas when there was limited capacity to deal with these increased pressures. He also highlighted that CITES COP17 Decisions 17.186-189<sup>1</sup> set out a series of actions for all *Anguilla* species, including lessons learned from the CITES listing of European Eel and encouraging data sharing and collection across the entire genus.

12. Concluding that prioritization was key, **Mr. Gollock** urged communication and coordination. While progress had been made to date in European case studies and trans-border opportunities, it was important to focus on whether other eel species might be affected by decisions on the European Eel.

13. **Alan Walker** addressed the “administration” of the European Eel management process. He noted the diversity of the eel life cycle and that the diversity of impacts on eels made management a challenge. He indicated that the opinions presented were his own and not attributable to the International Council for the Exploration of the Sea (ICES) or to any other entity with which he was associated.

14. **Mr. Walker** outlined the regulatory structure: the European Council<sup>2</sup> eel regulation (2007) governed the actions of Member States within the EU, but outside the EU regulation was country by country, with some regional Mediterranean coordination. He described how the problem was identified in Europe and the evolution of the regulatory framework from top-down to a distributed control management approach. Under the EU requirements since 2007, reports under the eel management plans were submitted every three years. While the reports had been evaluated in 2012, they had not been formally evaluated in 2015.

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<sup>1</sup> Available at <https://www.cites.org/eng/dec/index.php>

<sup>2</sup> Council Regulation (EC) No 1100/2007 of 18 September 2007 establishing measures for the recovery of the stock of European eel

15. **Mr. Walker** said that the whole-stock assessment conducted by ICES was based on recruitment indices, but he noted that there were no recruitment indices from North African countries, for example. He observed that for biomass and mortality targets associated with the EU Regulation, reporting was incomplete in 2015, and that there was no requirement for countries outside of the EU to provide this indispensable information. EU regulations had brought about management actions across Europe but he noted that recruitment and biomass were still too low, and mortality too high.

16. Finally, **Mr. Walker** posed some questions to consider in developing a regulatory framework across the entire distribution of the eel stock, including: how to manage impacts effectively; how to achieve an equitable distribution of responsibility; how to ensure eel management plans were enough to ensure recovery of the stock, and whether recovery could be achieved more effectively by focussing everywhere or focussing on the “big hitters”. He emphasized the need for feedback and consequences for inaction, and therefore the need for some entity to be responsible for overseeing management.

17. **Reinhold Hanel** described the lifecycle of the European Eel in the Sargasso Sea. It was still difficult to define the spawning area clearly. One hundred years before, a Danish oceanographer first found the smallest larvae in the Sargasso Sea, but still nothing was known about the actual spawning of eels. While an international database containing all available collection data of anguillid leptocephali in the North Atlantic existed, it indicated a wide area of the Sargasso Sea and a connection between the occurrence of the yet smallest larvae found with sea surface temperatures of 22-24 degrees Celsius. We knew about an overlap in the spawning areas between the American and European Eels and about hybrid larvae being identified. Hybrid yellow eels had so far only been found in Iceland. He noted that he was observing a decrease in “catch per unit effort” in anguillid larvae in the Sargasso Sea, meaning a lower abundance of European and American Eel larvae as compared to investigations carried out in the 1980s by American scientists. He talked about testing the New Moon hypotheses (claimed for Japanese Eel) for European Eels did not yield the same results, and noted that other many other Anguilliform larvae were found in the Sargasso Sea as well (such as Moray Eels, Congers, Snipe Eels, and others). Observations confirmed that while there was no significant change in the larval abundance of most other marine Anguilliform species, there was a clear decrease in European and American Eel larvae.

18. Noting that both continental and oceanic research efforts were needed, in **Mr. Hanel's** opinion, larval monitoring in the spawning area is needed as an indicator of spawner escapement integrated over the whole stock and as an absolute prerequisite for evaluating eventual climatic and oceanographic effects in larval transport and survival between the spawning area and the European coasts. The time series for the arrival of Glass Eels was known, and silver eel escapement was starting to be known but numbers were still doubtful. Therefore, he emphasized the need for larval surveys in the spawning area of the Sargasso Sea to provide a more immediate measure of fluctuations in European Eel spawning biomass. Very little was also known about the eel in its spawning migration phase, after leaving the continental shelf to reach the Sargasso Sea. No thresholds for maximum pollution or, more generally, spawner quality existed.

19. Explaining the Spanish experience, **Ms. Estibaliz Diaz**, stated that the European Eel management plan was important locally but not nationally. For the first time, all the local managers had met to create a national plan and calculate their indicators. After the report, it was

clear that some measures were not being implemented and targets not being met, and that some regions were not calculating the results for the indicators well.

19. **Ms. Estibaliz Diaz**, noted that before the European Eel Management Plan (EMP) was implemented, the Eel was managed in Spain at regional level, and there was no national coordination. The EMP was an important step forward since all the regional and national managers met to create a national plan, set management measures and calculate indicators for the first time. However, the report in 2015, showed that some measures were not being implemented and that some regions were not improving their indicator estimates as planned. She expressed her concern about the effect the lack for feedback and consequences for not meeting the commitments could have in the future implementation of the management plans

20. **Éric Feunteun** explained the need for international management of all 16 species, drawing on his experience in the islands in the south-western Pacific and Caribbean regions, where he observed that pressure on eels had increased since the EU ban on exports. As a result, he urged participants to think globally.

21. **Mr. Feunteun** raised the question of the variation of eel sizes and the relationship of size to contamination loads – pollution being a key factor. He questioned what effect this had on eels' ability to migrate. He also noted that downstream migrations could be blocked by physical barriers such as sluice gates, or wetlands development. Highlighting a recent science paper showing that silver eels moved at variable rates in migrations to the Sargasso Sea, that their migrations were slower than expected, and there was uncertainty on the location of the spawning areas in an area as large as 3,000 km<sup>2</sup> in Sargasso Sea, **Mr. Feunteun** concluded with the need to better understand the eels' spawning locations and migration routes.

22. **Willem Dekker** observed that the European Eel had been in decline for a century or more. He attributed this to an overly optimistic approach to eel fishery management for the last 100-150 years. The turning point occurred in 2003 in Quebec with the first declaration of international concern for the eel. Once ahead, the US and Canada had now lost that advantage as a result of the European adoption of “distributed control” through which the EU no longer used one management unit but rather was managing by distributing control to the Member States. In his opinion, the key to success in the EU was distributed control. He noted, however, that recovery of eel stock was slow, and it might be overly optimistic to rely on restocking. He suggested changing from biomass to mortality based approach to protect species at local level of national management plans.

23. **Evangelia Georgitsi** (EU, DG-Mare) noted that this panel, although exclusively made up of scientists, spoke mainly about management issues. While management was based on scientific advice, she would have preferred a more balanced composition of the panel. **Mr. Chambers** replied that this panel was the first presentation and that we would hear from managers in the next one.

24. **Mr. Freestone** intervened to note that, while this particular panel was intended to have a scientific focus, there was management expertise at this workshop, and eel management was a longstanding problem. He suggested we should look at CMS instruments because they reached beyond Europe. Although North African States had been invited to this meeting, attendance was hindered by visa issues. The management challenge had been a long-term problem, and the scientists were saying that we should look more holistically at ways to improve conservation efforts.

25. **Nils Höglund** (Coalition Clean Baltic or CCB) followed up on the question of where to prioritize: the ocean basin, the coast or upstream efforts. He noted that there was less human impact on the ocean basin, and the greatest human impacts on the eel occurred in the coast and upstream. In his opinion, funding should follow or be prioritized towards addressing human impacts.

26. Responding to the issue of oceanic versus continental prioritization, **Mr. Gollock** noted that he saw this issue as a spectrum. The aquatic environment varied, and to optimize management measures there was a need to understand what was happening in the ocean so as to better inform what could be controlled and the management measures that could be taken. Management efforts had to be shaped and adapted to new knowledge; in essence, this relationship would allow an adaptive response to new knowledge. Our understanding was changing in response to new knowledge.

27. Also on the point of the marine habitat, **Mr. Feunteun** agreed that new information was helpful for eel management, for example, the recent observation that all eels sought to converge on the Azores. He noted the need for international collaboration to manage the problem.

28. **Mr. Walker** indicated that he had intended to provide a perspective on the lessons learned in the past for moving into the future, including the application of basic principles for potential broader use of CMS. “Big hitters”, needed to be defined so that they could be identified.

29. Germany as many other European countries restocked with young eels from England and France to fulfil their management plans, explained **Mr. Hanel**, but evidence was still needed that restocking had a net benefit for the overall stock.

### **Agenda Item 3: Review of Possible International Regulatory Frameworks for Eels**

30. **Mr. Freestone** introduced the second discussion panel: **Vicki Crook** (TRAFFIC), **Evangelia Georgitsi** (DG-Mare, EU), and **Kirby Rootes-Murdy** (ASMFC, US) who addressed various management approaches. This session was based on a legal background paper written by **Otto Spijkers** and **Alex Oude Elferink**, Netherlands Institute for the Law of the Sea (NILOS) which considered possible options for an instrument under CMS. The panel also provided valuable perspectives on the illegal trade of eels and the EU management approach. **David Freestone** also mentioned the useful Portland, Maine workshop on the American Eel in 2015.

31. **Otto Spijkers** (NILOS) gave an overview of the international legal measures applicable to the eel that were already in place. He discussed potential added value of a and possible options for new CMS instrument. He also offered suggestions and examples of provisions that might be included in a CMS instrument. The value of a CMS instrument was that there was currently no regulatory framework that covered the entire range of the eels’ habitat and nothing at all that would provide protection for the eels’ high seas spawning area and oceanic migration routes. Moreover, CMS could provide an avenue for coordination.

32. **Mr. Freestone** highlighted a slide that showed that the possible CMS instruments included a legally binding Agreement, a legally non-binding MOU or an Action Plan.

33. **Vicki Crook** (TRAFFIC) explained that TRAFFIC worked with the European Commission to provide support and advice to EU Member States on wildlife trade issues. She provided background on the global eel trade, highlighting that since December 2010, no trade in European Eel had been allowed in or out of the EU; TRAFFIC had since increasingly been considering illegal trade, including trade routes and modus operandi. She noted that the use and trade of European eel were interrelated with the other eel species. For the last 20-30 years, East Asia had been the major consumer of eel (Japan and China). The CITES COP17 recently recommended (1) gathering more information on the eel trade, populations and threats and how successful the implementation of the listing of European Eel had been, (2) holding technical workshops on priority issues and (3) referring to future CITES Animal and Standing Committees for further action. Significantly, the entire genus of *Anguilla* would be considered under these CITES processes.

34. **Ms. Georgitsi** provided information on how the 2008 EU Eel regulation worked and the obligations on Member States and the Commission. The logic of the Regulation was that the target should be the same for all Member States, but Member States could choose the measures to implement to meet the target (the so-called 40 per cent escapement to the Sea). Member States had to submit their own plans with measures for protection. Management plans were subject to scientific evaluation to ensure that they could achieve the target of the Regulation. Technical modifications were sometimes required; for example, the Italian plan had taken five years to approve. Subject to positive scientific evaluation, the plans were then approved by the European Commission and only after approval could they be implemented. This process also applies to any subsequent modification. Initially, Member States must report every three years to the EU, but there is no specific template for reports resulting in complications and differences with the reporting process and information.

35. **Ms. Georgitsi** observed that the European Union did not have exclusive competence for the non-marine lifecycle aspects and the adoption of the Regulation was very challenging.

36. Questioning the need for a new international legal instrument, **Ms. Georgitsi** asked what was really missing. She listed the relevant current EU legal acts that could apply to eels, including the Common Fisheries Policy. Neighbouring countries could use EU standards as well. There was no legal obligation for non-EU countries to abide by EU rules, but they were strongly encouraged to so. North African countries obtain assistance through the General Fisheries Commission for the Mediterranean (GFCM), which was moving forward with its Mediterranean eel plan. The Parties to the Helsinki Convention (HELCOM) had a similar process for managing eels and salmon.

37. **Ms. Georgitsi** questioned whether the list of Range States had been updated to reflect the latest information. She raised the issue of the traceability of eels in trade and indicated that the current ban on the extra-EU trade in European Eels was the result of a decision by the EU CITES Scientific Review Group (in which the individual Scientific Authorities of the Member States make decisions collectively); this decision was reviewed regularly.

38. **Ms. Georgitsi** finally clarified that DG Mare would need a clear mandate before agreeing to anything. She also indicated her personal preference for binding legal instruments, while noting that she would need to assess if what already exists is not sufficient.

39. **Kirby Rootes-Murdy** (Atlantic States Marine Fisheries Commission, US) explained that American Eel fisheries in the US were managed through state waters. Only three states in



the US - Maine, South Carolina and Florida - currently had elver fisheries, and only Maine had a commercial eel fishery. In 2013, Maine had started to control the commercial dealers and the harvesters and improve data accuracy with implementation of a unique “swipe card” programme. In 2016, the Maine eel fishery netted \$13.3 million.

40. **Ms. Diaz** mentioned a workshop in 2017 focused on data collection related to eels through the GFCM, which included Mediterranean and North African countries (including Tunisia). Spain, France, Italy or Greece would try to take the lead and work with North African countries.

41. **Mr. Feunteun** inquired whether the eel could be listed under the EU Marine Strategy Framework Directive (MSFD). He noted that there should be more simplicity in regulation and that the current regulatory structure was complex. From the socio-economic perspective despite some progress, in his opinion, management was failing. While 60 per cent of the legal fishery was collapsing, illegal fishing was taking over.

42. **Mr. Freestone** asked **Melanie Virtue** (Head of Aquatic Team, CMS) to address whether we need an additional international instrument to conserve and manage eels and, if so, whether CMS was the correct forum.

43. **Ms. Virtue** responded that CMS was a global treaty. The European Eel met the definition of a highly migratory species. In addition, CMS was already working on migratory fish, including sharks and rays. Non-Parties could sign MOUs under CMS dealing with protection of species and their habitat. Such MOUs were complementary to CITES listings, which dealt with international trade. CMS also addressed barriers to migration and habitat and species survival issues.

44. Addressing also whether the European Eel Range States would choose to use CMS, **Ms. Virtue** noted that only 10 out of 50 or so Range States were at this workshop, and there was clearly a need for more countries to show their interest in the future.

45. **Ms. Virtue** then turned to the issue of what kind of instrument the Range States would prefer and its likelihood of success. The “Gold Standard” would be for a legally binding agreement, but it could take a number of years to negotiate, depending on the level of available funding for the process.

46. Considering what measures were needed for international cooperation to move forward and how to go about this so that it added value, **Mr. Fleming** raised several issues:

- (1) Whether existing mechanisms to achieve the objectives could be used or not. Additional instruments cost money and resources so a new instrument should be considered a last resort.
- (2) If not, what gaps there were in the current available mechanisms, and whether one of the CMS mechanisms could be used to address these.
- (3) Additionally, he noted that CITES had a mechanism, the Review of Significant Trade<sup>3</sup>, that could be used to address any concerns about unsustainable trade in

<sup>3</sup> <https://cites.org/sites/default/files/document/E-Res-12-08-R17.pdf>

European Eels originating from non-EU countries (noting the current EU trade suspension).

47. **Céline Impagliazzo** (Monaco) recognized the need to consider different steps before looking at a new agreement and at better cooperation beyond the EU efforts. She also underscored the lack of scientific knowledge as an area that could be improved.

48. Highlighting the success of the EU's approach to eel protection, **Mr. Dekker** attributed this success to non-uniformity of approach. He posited what additional legal instruments could be needed while recognizing that decentralized control was required.

49. **David VanderZwaag** asked if the HELCOM approach with the Baltic States was an option. **Mr. Höglund** responded that there were several working groups in HELCOM relating to biodiversity, pressure, status and conservation. He noted specifically that in the spring of 2016 the sub-group fish migratory species (FISH-M), had met and discussed a work programme. The eel was specifically addressed, linking to the shortfalls mentioned in the EU review on better coordinated scientific data collection, as well as the fact that illegal, unreported and unregulated (IUU) fishing of eels in the Baltic was a grey area affecting stock assessment. HELCOM contracting parties had been informed by the CCB about the CMS listing of eel and had shown interest of increased international coordination.

50. **Mr. Chambers** pointed out that an added value from a CMS instrument would be that it could include flag vessel authorities – a unique aspect to CMS. Also, CMS considered both species and habitat, which would help with protection in the Sargasso Sea. While a number of European instruments already existed, they had some limitations: they did not apply to a number of Range States outside the EU or they might be complementary to CMS, but more limited in scope. However, Range States still had to decide if there was a need for another instrument. CMS already had the European Eel listed on Appendix II, but the issue was whether CMS could do something else.

51. While observing that there was no desire to compete with the EU management approach on eels, **Mr. Freestone** identified unique issues outside the ambit of the current EU regime such as migration routes and high seas spawning in areas that also involved the American Eel. Other countries might want to become involved to protect their eel species, such as the USA, Canada, the Dominican Republic, Haiti or even various Asian countries, resulting in broader global interest.

52. While not trying to criticize the EU system, **Mr. Poole** highlighted the need for guidance on feedback on management and conservation plans and improved coordination of the EU and other countries. He stated that while the GFCM was doing its best and the non-EU States' efforts were looking encouraging, they were still generally behind European efforts and still needed funding for improved management. He mentioned that there was a need to "fast-track" the other States or there was a risk of losing initiatives of non-EU countries that were beginning to take place.

53. **Mr. Rootes-Murdy** asked how to coordinate the stock assessment across countries and whether the FAO Port State Measures Agreement might apply, to which **Mr. Freestone** suggested that because of its high value it seemed most of the eel smuggling was conducted by air.

54. After providing a historical perspective on stock assessment in Europe, **Mr. Dekker** concluded that he was not sure that stock assessment would ever be solved, or that anyone would ever have the full picture. The breakthrough was in giving up on a “single fit” international stock assessment and deciding to allow different countries to do it differently. Moving the focus from biomass, which was too slow to use as a measure of recovery, to a maximum mortality level. The system was now designed to set up minimum protection measures or levels by using the distributed control system to achieve the minimum protection level. Non-EU States could do also this; for example, Egypt had a large eel stock but needed to coordinate and respond.

55. **Mr. Walker** said that one should recognize that there was no penalty for not contributing to time series data, and it was currently EU-specific.

56. **Mr. Feunteun** mentioned that the quality of the eel recruitment assessment was affected by the ban on trade: France used to assess eel stock from fisheries, but fishery numbers fell by half after the ban on trade. Now, their recruitment numbers were unreliable. There was a need for fishery-independent indices to determine stock changes currently. Stock assessment was based on modelling rather recruitment at present. He noted however that consistency was needed in monitoring and that international waters could be addressed through CMS but not through the current EU regime.

57. **Mr. VanderZwaag** inquired how the EU set its targets for protection. **Ms. Georgitsi** (EU) explained that political negotiations ultimately determined the 40 per cent escapement target based on scientific advice – there was a scientific assessment of 50 per cent target for eels, but political considerations reduced it to 40 per cent. Usually, there was 30 per cent target for marine species.

58. **Mr. Poole** agreed that the advice of ICES was normally based on 30 per cent, but ICES had advised 50 per cent for eels to account for the species’ unusual biology, and the EU had chosen 40 per cent, but crucially without a timeframe for achievement of that target, which was causing problems. Not having a timeframe made it difficult to evaluate the contributions to recovery of each Eel Management Unit and often led to a less than rigorous approach. There was also a need to move from the use of biomass to mortality rate on eels; a mortality rate figure could predict trajectory in the short term. The current problem was basically that there could be a long-term timeframe to meet the targets.

#### **Agenda Item 4: Participation in Breakout Groups**

59. Workshop participants were divided into four breakout groups, each with a facilitator and reporter. The groups were asked to identify critical science and management gaps for European Eels and to consider what international cooperative actions would be achievable through a potential CMS instrument.

#### **Agenda Item 5: Reports from Breakout Groups and Plenary Discussion**

60. The group session leaders reported back to the plenary. Each group’s discussion was summarized by its rapporteur.

Group 4: David VanderZwaag (Facilitator), Matt Gollock (Rapporteur)

61. Group 4 focused on identifying the science and management gaps and which were the key ones. They focused on the essential gaps in light of what would be feasible to achieve the best outcomes, but did not discuss options for the correct instrument other than to identify gaps.

62. Group 4 noted first that within the EU, the ICES already existed, as well as the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC) and GFCM working groups, as structures for establishing benchmarks; however, that said, existing tools could be strengthened and science and management gaps still existed including:

- (1) While non-EU states could align with the ICES working group, there was still a need for more capacity-building and resource and information sharing;
- (2) Data were sometimes submitted without robust quality control by Range States;
- (3) Illegal, Unregulated and Unreported (IUU) fishing and enforcement were issues;
- (4) Other areas beyond the Sargasso Sea, including the Straits of Gibraltar, were areas that could be protected temporally in line with our understanding of escapement;
- (5) There were knowledge gaps in: the scientific understanding of spawner quality (parasites and contaminants effects); the usefulness of stocking and the relationship of mortality with stocking; the marine versus fresh water carrying capacity of stocks in growth stages; and whether there was an equitable importance of stock across the range and whether this changed temporally due to other factors; and
- (6) There was a need to convene a second meeting with more Range States to encourage knowledge sharing and needs assessment to support and build relationships, including the need for a forum for capacity-building for Range States; and the difficulty in developing an instrument under CMS might be offset by having a second meeting.

Group 3: Melanie Virtue (Facilitator), Eric Feunteun (Rapporteur)

63. Group Three addressed two questions: (1) What actions were required to improve management (2) What international cooperation could occur.

64. They considered how to best use what already existed and improve awareness from governments and stakeholders at a wider level. For example, stakeholders did not know about the legal instruments so they were not aware of what to do.

65. International awareness of the eels' charismatic nature could be improved beyond the EU to non-EU Range States and to non-Range States. It was important to reverse the impression that the eel was unpopular and show that the eel was beautiful.

66. There was also a need to address the feeling of unfairness among stakeholders such as fishermen who felt that they were making sacrifices by not fishing for eels while others were

continuing to fish them. The group suggested an increase in transparency between EU and non-EU Range State countries on actions and plans.

67. The group also noted that there was a need for more research on oceans to better understand the situation and additional local research needed on restocking and on the difference between stocked eels and natural eels.

68. Eels were “sentinels” of the environment and global change; if eels were in areas of the ocean that was an indicator of a good habitat. It was important to achieve international recognition of the significance of eels and their charismatic nature, including that they could be the flagship for the success of ocean management.

69. Group Three addressed their second question: What could be achieved through better international cooperation. They concluded that we had to:

- (1) Improve knowledge on silver and glass eel stock and go beyond local research to cooperate on international ocean areas, even outside of Europe;
- (2) Trigger international attention on marine stages and ecology of the eel, and to move beyond German funding to achieve broader international support for the eel research;
- (3) Set time limits for management goals; and
- (4) Develop ethics and good management techniques and practices for artificial breeding and aquaculture of eels.

Group 2: Bradnee Chambers (Facilitator), Alan Walker (Rapporteur)

70. Group Two agreed on the need for an international instrument, noting that bilateral arrangements were not enough. The lack of an effective international agreement beyond the EU dilutes the effectiveness of the EU process; moreover, an international instrument could cover the high seas.

71. The group recognized the diverse threats that existed across countries and needs of each country. They also noted the need for a target with a timeframe – for example, five years was proposed – and the need to define management units for management plans that could include the high seas. They also discussed the idea of establishing regular annual reporting and a review mechanism and feedback process, overseen by a compliance committee.

72. Group Two also noted the existing authorities for scientific advice could serve any approval process mechanism. However, they noted that there might be some regional issues, such as in the Baltic region, where there was a need for scientific data guides and resources, better baseline information on biology, and where best practice guidelines could to be updated.

73. **Ms. Georgitsi** requested clarification on the scope of the instrument under consideration, as this had a direct impact on the choice of the legal instrument. For instance, if the intention was to extend the requirements of the Eel regulation beyond EU Member States, in particular to encourage Northern African countries to establish and implement eel management plans, then a new international agreement under CMS would be useful. By

contrast, if the intention was primarily to facilitate exchange of data and improve the quality of stock assessment, then an MOU could be sufficient.

Group 1 David Freestone (Facilitator), Kirby Rootes-Murdy (Rapporteur)

74. Group One first discussed international co-operative actions including:

- (1) The need to reduce fishing mortality;
- (2) Knowledge gaps at regional level and sometimes even country level, and the need for better knowledge on spawning activities;
- (3) Mortality associated with hydropower needed to be better understood, and technology needed to be shared regarding methods used to reduce mortality from hydropower;
- (4) Restocking needed to be evaluated to determine whether it was benefiting the eel population or just fishers;
- (5) Current international interest in collaborative funding such as whether funds should be redirected from cod to eel in the Atlantic;
- (6) Financing for non-EU continental countries should be explored; and
- (7) The need to develop the political will to address eel management effectively.

75. Group One then discussed the CMS instrument of choice, indicating that it should address:

- (1) International cooperation towards an improved standardized “toolbox” approach designed to ensure 40 per cent escapement and provide an “end” timeframe;
- (2) Regional efforts and fishery management plans with different approaches for different fisheries and catchment (silver, yellow or glass);
- (3) Need for a governing body for high seas areas that would cover the international migration of eels; and
- (4) Mobilization of new resources.

76. **Mr. Dekker** mentioned that the “tool box” had already been developed, but the political will to implement it had not.

77. **Mr. Freestone** observed that an international instrument might help elevate the political will of other countries. He also noted that models and data sometimes do not match: modelling and science could be different and resources need to be shared, and that often Northern European and Southern European issues were different.

78. **Mr. Chambers** agreed that the threats were so diverse that there was a need for flexibility through possible optional practices to achieve the target.

79. **Mr. Hanel** inquired whether countries could obtain funding from the Data Collection Framework (DCF) to collaborate in their data collection efforts at sea on the marine phase of eel larval surveys. Replying that there was nothing specific to eels in the DCF, **Ms. Georgitsi** offered to check.
80. **Mr. Walker** indicated that the DCF was under the EMFF policy implementation process where pilot studies might obtain funding outside of the DCF, but it was not clear if Sargasso Sea survey work would qualify.
81. **Ms. Georgitsi** noted that, to her best of her knowledge, there was no budget available to cover this type of survey work.
82. **Mr. Freestone** raised the question of whether it was an appropriate consideration for the CMS to expand the instrument to cover the entire Atlantic Basin to include the American Eel, and not limit its coverage to European Eel, given the overlap in spawning areas. He mentioned the “balloon effect” where effective protection measures on the European Eel would increase the pressure on, and exploitation of, the American Eel.
83. Raising the issue of whether the principles involved in setting up the regulation for the European Eel would work for *A. rostrata* as well, **Mr. Poole** questioned whether there were similar threats to address.
84. **Mr. VanderZwaag** highlighted the symbolic need to raise the profile of this issue in the context of the Biodiversity in Areas beyond National Jurisdiction (BBNJ) preparatory process currently being undertaken at the UN.
85. Agreeing that the eel was a sentinel creature for the ocean ecosystem and should be a part of the United Nation’s BBNJ process, **Mr. Long** mentioned the significance of the EU Marine Strategy Framework Directive (MSFD) in the context of the broader biodiversity conversation.
86. **Mr. Chambers** highlighted the significance of a broader agreement outside of the EU that covered the North Africa countries, agreeing that this would be the most effective and best approach. It would also allow the maximum survival of the species by protecting its ecosystem so building a case for the level of protection within the Sargasso Sea was important to consider. The case for Sargasso Sea protections could even be expanded to cover other migratory species such as sharks, cetaceans and sea turtles; it would be building a case for broader protection across species.
87. **Mr. Fleming** stated that an international agreement was resource-intensive and heavy-handed for the high seas area. In his opinion, the outcome of the UN BBNJ process would be the only way the high seas might receive protection. He noted that a focus on the Mediterranean and North African countries was the key issue for the European Eel and wondered if existing instruments could be more useful to these countries to bring Range States together to discuss needs and information sharing first.
88. **Mr. Long** intervened to note that there was a movement to exclude fisheries from the BBNJ instrument’s coverage. This would mean that there would be no international body in Areas beyond National Jurisdiction with competence over eels, which was a gap in existing

management. The eel was unique, but one could not divorce it from the broader biodiversity of the ocean.

89. **Mr. Freestone** explained that governance of the high seas could be done by treaty. Countries could make their own legal agreements and treaties and establish a protected area by legal treaty; or short of that, they could do everything currently permitted under international law by MOU. The BBNJ process was working towards an instrument to establish protected areas in the high seas that was enforceable.

90. **Mr. Chambers** observed that precedent did exist for the establishment of a protected area under CMS, and 124 countries were already on board. Politics within the BBNJ process might not make this kind of protection possible.

91. **Mr. Freestone** explained also that some areas of the high seas were already protected by treaty arrangements in place; Monaco, France and Italy had created the first one - the Pelagos Sanctuary; Special Area designations under the Barcelona Convention – in the Mediterranean – although they were subject to the special high seas regime of the Mediterranean; as well as OSPAR and South Orkney in the Southern Ocean were all made by treaty.

92. Emphasizing the need to think globally as the fate of all the eel species was bound together, **Mr. Feunteun** noted that CMS was a good instrument to use to elevate the global nature of the eels' destiny. He highlighted the universal threat to eels of plastics in the food web of the Sargasso Sea and a recent paper he had written with Michael Miller on the perfect storm of marine and continental changes. There was a concern about the quality of marine organic matter that larval eels fed on and a need to better understand what leptocephali ate and the effect of plastics on eels.

93. Agreeing that there were many serious anthropogenic impacts on eels, **Mr. Freestone** mentioned deep sea seamount and seabed mining could become an issue for the leptocephali: as temperatures rose in the Sargasso Sea, the eel spawning area could move north, and the International Seabed Authority (ISA) was looking at more applications to explore deep sea minerals in Mid-Atlantic Ridge. The fall-out from the plumes of this seabed mining might become an issue for the eels' larval stage.

#### **Agenda Item 6: Discussion of Existing International Instruments**

94. **Mr. Freestone** summarized the consensus reached on the first day concerning what needed to be done, what the benefit of international collaboration would be, and whether a new instrument might be needed. All four breakout groups agreed upon the critical need for international collaboration towards improved conservation of the European Eel and a consensus emerged on the types of issue that demanded international collaboration.

95. **Mr. Freestone** conducted an overview of the measures and instruments already in place that could apply to international collaboration on eels, much of which was laid out in the legal background paper presented by **Mr. Spijkers** on Day One:

- (1) The United Nations Convention on the Law of the Sea (UNCLOS), which he noted was a framework – not a management instrument.



- (2) The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which was an important international trade agreement and complementary to CMS.
- (3) The Secretariat of the Convention on Biological Diversity (CBD) was a policy-oriented organization not an executive agency. It had sponsored a series of regional workshops for describing areas of biological significance. These Ecologically or Biologically Significant Area (EBSA) descriptions were all on the CBD website, and one of the earliest high seas EBSAs was the Sargasso Sea, mapped in 2012 which covered 2 million square miles.
- (4) The Code of Conduct for Responsible Fisheries of Food and Agriculture Organization was hortatory; it was not legally binding rather a guidance document.
- (5) European Union Eel Management Plans (EMP) and the Habitats Directive of the European Union applied only to the EU Member States; however, it was noted that there was the possible use of these same techniques with as wide an audience as possible, for example, with non-EU countries and worldwide.
- (6) The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) was a regional convention on wildlife in which some of the North African Range States were not represented. CMS worked closely with the Bern Convention, especially regarding bird species; however, **Mr. Chambers** questioned whether the Bern Convention had a wide enough scope for the international coverage needed in the case of the eel.

96. On the issue of the Bern Convention, **Mr. Spijkers** highlighted that an effort in 2004 to list the eel under the Bern Convention failed, but that effort could be tried again. Significantly, both Tunisia and Morocco were involved in the Bern Convention. **Mr. Freestone** concurred that it could apply more widely than to the EU countries but could not be extended to consider other species of eel, such as the American Eel.

97. Noting the existence of National Biodiversity Strategies and Action Plans (NBSAPs) developed under the aegis of CBD, **Mr. Fleming** raised the issue that NBSAPs, if they included measures for European or other eels, could enable access to Global Environment Facility (GEF) funding, especially for the North African countries. **Mr. Chambers** replied that CMS was focusing its efforts through the Aichi Biodiversity targets and NBSAPs.

98. **Mr. Chambers** pointed out that there was an attempt to open a window for GEF funding, but it had been decided at the last CMS COP for CBD to request for biodiversity funding through other avenues as GEF 7 funding was ending. He also noted that working through the biodiversity plans required considerable coordination when making official requests for funding from GEF.

99. **Mr. Freestone** added that the new Green Climate Fund was a US\$10.5 billion fund covering climate adaptation as well as mitigation projects -some of which might be available for marine areas.

100. **Mr. Freestone** noted the SSC collaboration with the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), and noted that

OSPAR had mentioned European Eels as species of concern. Their area of competence, however, did not cover the spawning area in the Sargasso Sea.

101. The EU Marine Strategy Framework Directive (MSFD) listed eels in many countries according to **Mr. Feunteun**. When a fish was listed, EU Member States should take measures to improve the status of species, which was important to reach the “Good Status” goal.

102. **Mr. Freestone** mentioned the Regional Seas and other alliances of coastal states, in particular, the Mediterranean States and the General Fisheries Commission for the Mediterranean (GFCM), which was the regional fisheries body primarily of relevance.

103. **Mr. Walker** emphasized the critical importance of the GFCM as the fisheries commission responsible for coordinating the development of non-EU countries’ eel management plans in the Mediterranean region. It was responsible for facilitating and developing the eel management plans for the non-EU Mediterranean States culminating in a workshop in 2017. He noted that the GFCM had competence only with regard to fisheries and was limited to Mediterranean countries. However, if it made an agreement with their Member States, it was legally binding on those States.

104. **Mr. Walker** elaborated on the role of ICES as an international scientific body, made up of experts from member countries, that provided scientific advice in general and as requested. The European Commission used ICES to provide scientific advice but other clients could also draw on this service. ICES focused on the North Atlantic jurisdiction, but it could move beyond to Canada and the USA in the Atlantic.

105. **Mr. Poole** explained that ICES had an international base and other countries or organizations (such as NASCO) could pay it to provide scientific advice. It was noted that, for example, Norway, which was a non-EU country, signed an MOU for ICES to provide Norway with scientific advice.

106. **Mr. Dekker** noted that ICES was not a governmental body, but rather was a scientific non-governmental organization.

107. **Mr. Freestone** mentioned that the IUCN was another scientific advisory body that had responsibility for the internationally respected Red List. It was an international organization with various commissions on environmental law and other areas, but lacked an executive capacity, as it was mainly a science-based advisory body.

108. **Ms. Georgitsi** noted that there was a long list of other entities and bodies missing from this discussion such as the International Maritime Organization (IMO), the North East Atlantic Fisheries Commission (NEAFC), and the North Atlantic Fisheries Organization (NAFO), among others.

109. **Mr. Spijkers** emphasized that while the IMO had options for protections, such as Particularly Sensitive Sea Area (PSSA) designations, it was essentially a maritime organization.

110. **Mr. Fleming** interjected that the RFMOs might have relevance: NAFO had competency in parts of the Sargasso Sea, the International Commission for the Conservation of Atlantic Tunas (ICCAT) was responsible for fishery management of some pelagic species, and NEAFC had competency in the OSPAR area.

111. Highlighting the Helsinki Agreement might also be relevant, **Ms. Georgitsi** stated that there were too many others to list.

112. **Mr. Freestone** expressed the feeling that there were clear partners for further protections, including the EU and that it would be useful to explore whether the Bern Convention could be an option. He also emphasized that an instrument that covered the full range of the eel did not exist and there was interest in a global instrument because control on one eel species put pressure on other eels. He also posited that maybe a more limited focus on Atlantic Basin would be appropriate and that CMS could be an appropriate instrument to do that.

### **Agenda Item 7: CMS Criteria for Agreements**

113. **Ms. Virtue** discussed the criteria adopted by the CMS Parties to ascertain whether a CMS instrument of some sort was appropriate. The Criteria for Agreement had been adopted in 2014 by CMS Resolution 11.12 and if a new agreement or MOU were to be considered, there were a number of steps or factors to address:

- (1) *Conservation Priority (severity of conservation need and conservation status; links to migration and urgency of need).* An Agreement could take all or multiple species or just one or part of a species. **Ms. Virtue** noted that just because the American Eel was not listed under CMS did not preclude including it along with the European Eel.
- (2) *Serving a specific existing COP mandate.* **Ms. Virtue** noted that this factor was already met by the listing of the European Eel at the COP on Appendix II.
- (3) *Clear and specific defined process.* This factor required defined intended outcomes and benefits from international cooperation. **Mr. Freestone** noted that the discussion the previous day indicating further cooperation with advantages was relevant to this criterion.
- (4) *Absence of better remedies outside the CMS system.* This criterion involved a discussion about whether there were better options than using CMS.
- (5) *Absence of better remedies inside the CMS system.* This factor required a comparison of which options were the best ones within CMS.
- (6) *If a CMS instrument was best, extending an existing one was not feasible.* This criterion required consideration of the current MOUs and Agreements under CMS. The most relevant existing instrument was the Sharks MOU, however, there was little likelihood for expanding its scope to include eels.
- (7) *Prospects for funding.* This criterion assessed the likelihood of available funding, an indicative budget and sustainable level of resources. Sustainable funding was required to reach agreement and implement the instrument. SSC could be a possible.
- (8) *Synergies and Cost Effectiveness.* This criterion related to economies of scale achieved by working together.

- (9) *Prospects for Leadership in Developing the Agreement.* This factor identified the need for a lead or champion countries or country group. The SSC was mentioned as a possibility.
- (10) *Prospects for Coordination of the Agreement's Implementation.* This factor addressed meaningful prospects for coordination, country champion, etc. An example was the role that the USA had played for both the sharks and turtles MOUs.
- (11) *Feasibility in Other Respects.* This involved identification of diplomatic barriers and other obstacles.
- (12) *Likelihood of Success.* This addressed whether the instrument was likely to have the desired ecological impacts and requires an assessment of the risk factors. **Mr. Freestone** noted that the illegal market in elvers was an issue should be taken in account as it was an economic issue at heart. He also noted that this would be a long-term commitment. **Ms. Virtue** suggested that other factors should be taken into account in this assessment, such as climate change.
- (13) *Magnitude of Likely Impact.* This addressed the catalytic and multiplier effect on the entire species.
- (14) *Provision for Monitoring and Evaluation.* This could be addressed once an instrument was being developed.

114. **Mr. Freestone** requested questions and opinions on whether the idea of a CMS instrument seemed a worthwhile one at this point.

115. **Mr. Chambers** mentioned that different types of agreement were available under CMS: a legally binding agreement anticipated funding on a UN indicative scale, while an MOU involved voluntary contributions. Many countries had approval problems with legal agreements, and securing approval to sign an MOU was easier. He noted also that MOUs (for example, those related to turtles and sharks) were often quite successful in obtaining funding. **Ms. Virtue** noted that MOUs had, at best, voluntary contributions, whereas Agreements should provide for assessed contributions which once agreed, become legal obligations from Parties.

116. **Ms. Impagliazzo** (Monaco) stated that States had to consider the costs of funding a Secretariat, and whether it would be a small secretariat or a larger one. As an example, she mentioned the Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) Secretariat, hosted by the Principality of Monaco.

117. **Mr. Chambers** stated that as Secretariats cost money, it was ultimately more cost effective to join together with the CMS Secretariat.

118. As an alternative to combining with the CMS Secretariat, **Mr. Freestone** mentioned the opportunity for countries to become champions of the eel, as Monaco was for ACCOBAMS.

119. **Mr. Dekker** stated that with the EU eel management plans, countries were imposing costs upon their fisheries management structure already. Member States were still responsible for costs of activities in Member States.

120. **Mr. Freestone** explained that the costs of Secretariat functions covered the international coordination aspect, not the individual countries' costs to comply or implement the eel management plans. He noted that the eel listing under Appendix II raised the European Eel's profile internationally.

121. The CMS Secretariat promoted capacity-building and raised awareness, **Mr. Chambers** clarified. The Secretariat did more than fulfil administrative functions, as it could promote implementation and cover a great deal of substance. Fundraising was also a large part of its work.

122. **Ms. Georgitsi** indicated that a detailed financial discussion might be premature without a better understanding of the level of achievement of the EU regulation or possibility to extend the EU regulation standards to all Range States. She noted the possibility of collaboration on the Sargasso Sea and promoting good practices into the eel spawning area. She noted the need for more clarity on the objectives and usefulness of taking a new approach.

123. **Mr. Chambers** responded that he felt that it was necessary to go through these criteria to ensure that any CMS instrument would be feasible. In the past, the CMS Secretariat had developed agreements that proved not to be viable; as a result, CMS was now more cautious when considering what did and what did not work. It was important to be aware of the CMS Criteria because it was how the evaluated whether an instrument would be viable.

### **Agenda Item 8: Content of a Proposed CMS Instrument**

124. **Mr. Freestone** posed the question of whether it would be useful for the meeting to pursue the next steps, which would involve identifying the possible content of a CMS instrument. The group agreed that would be premature at this stage.

125. **Mr. Chambers** summarized the issues raised during this workshop and areas identified as possible content by the breakout groups, and urged States to consider the overlapping points when developing key elements of any possible agreement. Key elements identified by the groups included:

- (1) Recognition that the diversity of threats that eels face in different jurisdictions required that any instrument should not simply set out a list of possible measures but rather look to set targets with feasible timeframes;
- (2) Recognition of the value of the creation of national management plans that included a menu of possible options but were not prescriptive;
- (3) Peer review and approval process such as the EU system;
- (4) Assessment of plans to ensure they met specific criteria or were sent back for more work;
- (5) Need to ensure baseline data on, for example, geographic scope and mortality data;

- (6) Establishment of a feedback mechanism for regular reporting was extremely important to judge meeting targets;
- (7) Discussion of facilitative review mechanisms versus penal or punitive mechanisms, noting that both punitive and facilitative measures could work;
- (8) Recognition that there was a good deal of science already on the eels that should not be duplicated but that this scientific knowledge should be used by bringing it into the decision-making process, for example, the use of ICES to provide scientific advice for eel management bodies; and
- (9) Value of a reservoir of knowledge on best practices/measures that was kept up to date, a “toolkit” of best practices for members.

126. **Mr. Freestone** reiterated that the international waters issues, involving the spawning phase and migration phase in the high seas were also critical to keep in mind and fell outside of existing instruments. It was important to consider the feasibility of protection or of designation of spawning areas from anthropogenic uses such as deep sea mining that might adversely impact those areas, with serious consequences for the species.

127. Based on the discussion, **Mr. Freestone** also identified key elements for the content of any possible agreement including:

- (1) Diversity of threats to eels demand a flexible approach that did not require uniformity of approach across countries;
- (2) Framework with measurable targets (e.g. 40 per cent escapement) and time frames;
- (3) International scope of the migratory routes and spawning area including escapement from the Straits of Gibraltar and other routes to the sea;
- (4) Development of national management plans with established criteria and timely submission and approval process;
- (5) Tool box approach with indicative menu of optional measures to be applied nationally that served to identify the best practices and provide a learning process;
- (6) Regular reporting with review and compliance mechanisms that could be facilitative;
- (7) Requirements for baseline data for monitoring including geographic range and mortality;
- (8) Best practices guide that used existing scientific bodies and advice (ICES, others) to avoid duplication of scientific knowledge; and
- (9) Identifying key partners to work closely with, including the EU, Regional Seas Programmes (Barcelona, HELCOM, etc.), RFMOs (GFCM) and others.

128. **Vitalie Grimalschi** (Moldova) noted that Moldova had a draft plan for two rivers of significance to eels.

129. While the marine strategic framework directive (MSFD) existed already, **Mr. Feunteun** observed that there was still a need to focus on knowledge required to implement plans nationally. There were large knowledge gaps that needed to be addressed and recommendations for international cooperation on knowledge that still had to be obtained would be useful to tackle this problem.

130. **Ms. Virtue** noted that this was similar to the situation with sharks, where there was a CMS MOU to encourage the necessary research.

131. **Mr. Freestone** agreed that we could add knowledge gap to the list of content elements for a CMS agreement.

132. Asking whether a CMS agreement were to require national management plans and were extended to include American eels, **Mr. Benchetrit** wondered would Canada and the USA be required to have national management plans similar to those of non-EU countries. He noted that that the provinces of Quebec and Ontario had management plans even though such plans were not yet in place in other provinces or nationally.

133. **Mr. Freestone** explained that some US States had management plans. These State plans were coordinated by the Federal Government through the Atlantic States Marine Fisheries Commission (ASMFC). However, this system only applied to Atlantic States not to the eels that travelled past the ASMFC jurisdictional area. If a CMS agreement were to be widened to all eel species in the Atlantic Basin, it would have to accommodate federal systems such as those of Canada, the USA and other countries.

134. **Ms. Georgitsi** inquired whether an Atlantic basin approach would exclude the Mediterranean.

135. **Mr. Freestone** responded that it could include the Range States of both, and extend through Central America and eastern Venezuela, as far as the American Eel's range stretched.

136. **Mr. Dekker** observed the advantage of combining both Atlantic Basin eel species into a single arrangement; however, he cautioned that if this combination would slow down progress on the European Eel then adding the American Eel to a CMS instrument on European Eel would not make sense. While he highlighted the missing link between research needs and management, he pointed out that if the willingness and budget were there, there was enough knowledge to manage the eel right now.

137. Focusing on the point of what we want to achieve, **Mr. Walker** concluded that the objective was recovery of the eel stock, which was critically endangered. Eel management plans were way to achieve the goal.

138. Observing that there were a number of Range States missing from this workshop, **Mr. Fleming** questioned the wisdom of trying to decide at this point the issue of whether to include the American Eel in a CMS instrument dealing with the European Eel. He urged that any instrument should avoid duplication of reporting requirements.

139. **Mr. Chambers** responded that CMS was making efforts to minimize reporting burdens by harmonizing reporting and using an online reporting system that features a standard format with pre-filled questions. Another key element of a CMS instrument would be capacity-building and technical assistance for help with developing and implementing plans.

140. **Mr. Grimalschi** stated that Moldova's 2015 plan was approved and included species conservation for those listed in the IUCN Red Book. He described a large trans-boundary project for a reserve with Ukraine, Romania and Moldova that would provide habitat for eel.

141. **Mr. Spijkers** emphasized that his paper, introduced earlier, contained many more suggestions which should be reviewed in detail.

142. **Ms. Crook** requested clarification of whether we were looking at drawing up an action plan for the species first and then these mechanisms or process components would follow. She wondered if it would be beneficial to determine specific priority action plan conservation measures before discussing the technical elements of any instrument.

143. **Mr. Dekker** responded that he believed that action plans did not work in the case of European Eel management because people were not motivated to do things that they did not perceive as helpful to themselves. As a result, the structure of planned action had to be the heart of this proposal.

144. Given the participation of many scientific experts at this workshop, **Ms. Georgitsi** observed that the state of the science on the eel stocks was an appropriate issue, but to make progress in policy another workshop with more Range States managers in attendance, particularly from non-EU States would be required.

### **Agenda Item 10: Next Steps**

145. **Mr. Freestone** summarized the next steps:

- (1) *A second policy workshop inclusive of key Range States from North Africa. This first workshop was more of a science-focused technical Range State meeting.*
- (2) *Feasibility assessment of whether to include the American Eel in the CMS instrument.*

146. **Ms. Impagliazzo** noted that a second workshop was important and suggested that the organizers should send out a questionnaire to all Range States in advance to identify relevant issues and management gaps and focus discussion at the second workshop.

147. **Mr. Gollock** stated that it was important to ensure the European Eel was covered first under a CMS instrument. Then it would be appropriate to consider moving forward on a wider approach with the American Eel. The European management situation and process was more advanced, and it was important to recognize and take advantage of that fact and not slow that process by seeking a broader instrument covering both species.

148. American Eel management needed much more work both within Canada and other countries, agreed **Mr. Benchetrit**. To look for management approaches further south than the USA would take much more work.



149. Currently the main goal in the USA was achieving a continental stock assessment of the American Eel, which would take years, observed **Mr. Kirby Rootes-Murdy**. It would be possible to feed into the feasibility assessment on adding the American Eel to a CMS instrument in a few years.

150. The focus should be on the European Eel first, agreed **Mr. Dekker**, with the note that Japan and New Zealand could also benefit from some assistance with eel management.

151. **Mr. Chambers** approved of the approach to lead with the European Eel for a CMS instrument but involve American Eel Range States. The CMS could be a good forum to bring these together and bring the American Eel process forward.

152. **Mr. Freestone** also agreed that the process should start with the European Eel but engage with other Range States for other eel species by bringing them into the discussion. He continued to list next steps:

- (3) *Feasibility assessment of Sargasso Sea protections possible in an international instrument.*

153. **Mr. Feunteun** stated that American Eel management was further behind, especially in the Caribbean area, but there was a need to focus on the Sargasso Sea and rely on the USA and Canada to move American Eel protection forward.

154. **Mr. Freestone** recognized that a feasibility assessment of Sargasso Sea protections under possible international instrument would look at a number of countries, and he questioned exactly how many others might be involved and the nature of their existing regulatory framework.

155. Observing the complicated nature of assessing the feasibility of including additional eel species, **Mr. VanderZwaag** suggested looking at various options separately: one for American Eel and one for Japanese Eel; he also suggested that a paper could look at other models such as the global shark agreements and action plans and examine the action plans and MOU options to see what differences might exist.

156. Observing the complicated nature of including additional eel species, **Mr. VanderZwaag** suggested looking at various options, such as separate agreements for the American Eel and for the Japanese Eel; he also suggested that a commissioned paper could look at other models such as the global CMS Sharks MOU and related conservation plan; and a paper might also examine the Action Plan and MOU options to see what key differences might exist.

157. **Mr. Freestone** noted that while this was a global issue, we should take one step at a time. The process could start by concentrating on the European Eel first and possibly bring in other species later.

158. **Mr. Chambers** agreed that for a future policy workshop, it would be useful to have an assessment of options and the types of instruments available.

159. There were some models to use, for example, the approach of the various IMO Port States MOUs might be of interest suggested **Mr. Freestone**. Feasibility reports should be completed before the next workshop. In this situation, we were looking at what protection could

be considered short of a legal instrument to protect the high seas areas. He continued to list next steps:

(4) *Bring to the attention of CMS Parties seeking their advice.*

160. **Mr. Chambers** mentioned that there would be a meeting of the CMS Scientific Council and the upcoming CMS COP in 2017, both providing opportunities to bring this issue to the CMS Parties to seek their advice.

161. **Ms. Virtue** explained that because the European Eel was already on the Appendix II, CMS Parties had already agreed that this species would benefit from an international agreement. She noted that the mandate to develop an instrument under CMS existed. However, Range States had to determine whether to enter into an instrument themselves.

(5) *Sargasso Sea Commission to look at CMS criteria more closely.*

(6) *Finalizing the report of the meeting.*

162. **Mr. Freestone** stated that the draft report would be reviewed by the Secretariat and moderators and facilitators before being circulated to the group providing a review period to submit comments.

163. The CMS Secretariat would share the final report with others such as HELCOM, the Barcelona Convention, the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC), GFCM and its working groups, the ICES Fisheries Advisory Board and North African members of GFCM, among other key contacts, for information and any feedback.

164. **Mr. Poole** suggested that as the GFCM was not present, it should be consulted later by the Secretariat. Its efforts were important and should be encouraged. He suggested that a bilateral meeting with GFCM might be useful to encourage coordinated progress on the European Eel.

(7) *Planning for the next meeting.*

165. **Mr. Freestone** hoped that next workshop could be held the following year, but finance would remain a significant issue.

166. The issue of Range State contacts was raised, noting that Range State fisheries experts might need to be the contacts for the next meeting. **Mr. Poole** requested that CMS add the fisheries and eel contacts to its official email contact list for Range States so that the key people could stay connected in the future.

167. The location and timing of the meeting would need to be considered as well. **Mr. Long** suggested that he could possibly host the meeting in Malmö, Sweden. Alternatively, it could be combined with the CMS COP 2017 in Manila.

168. A note of caution was raised by **Ms. Virtue** that the CMS COP was usually attended by Environment Ministry officials who generally did not have the mandate for fisheries as well. Thus, there might not be many synergies to holding a meeting in the margins of COP. In

addition, CMS Parties had requested the Secretariat to avoid such overlaps, which could detract from COP organization.

169. **Mr. Walker** noted that the next ICES Annual Conference meeting would be held in Florida in September 2017.

#### **Agenda Item 11: Closing Remarks**

170. In closing, **Mr. Freestone** thanked everyone for attending, noting that it was tremendously exciting to be working on this issue and such an amazing species. The spawning and migration of the eel was a truly iconic event. It was a worthwhile venture to explore further the idea of broadening protections for eels.

171. **Mr. Freestone** extended his appreciation to the CMS and SSC Secretariats for their hard work, **Ronan Long** and **Russell Poole** for convincing us to come to Galway, **Otto Spijkers** and **Matt Gollock** and their colleagues for their significant contributions, to the meeting reporters **Faith Bulger** and **Margaret Armstrong**, and to the participants for coming to the workshop. He also expressed gratitude to the Dutch Ministry of Nature, the Marine Institute, Glwya and the Law of the Sea Group, National University of Ireland, Galway, for their support of the Workshop.



# Convention on the Conservation of Migratory Species of Wild Animals

Secretariat provided by the United Nations Environment Programme



## First Range States Workshop on the European Eel

Galway, Ireland, 13 – 14 October 2016

UNEP/CMS/Eels WS1/Outcome

### Summary of Outcomes

The following points were agreed by participants at the end of the meeting:

#### 1. Key Elements of a future agreement

- Objective: Recovery of the eel stocks.
- Given the diversity of threats to eels, and the fact that they are not uniform across countries there is a need to take a flexible approach to measures within any international instrument.
- A measurable target with a time frame, e.g. 40% escapement.
- International scope including possible protection of spawning grounds such as Sargasso Sea
- Creation of National Management Plans
  - Timely submission including approval process
- ‘Tool box approach’ - indicative menu of optional measures that could be used nationally
- Regular reporting mechanism
- Review/Compliance mechanism
- Requirement for baseline data for monitoring e.g. geographic scope, mortality rates
- Best practice guides on technology maintained and up to date, and available to all parties.
- Non-duplication of scientific knowledge, using existing scientific bodies for advice.
- Identify key partners that would work closely with the instrument, including Regional Seas Conventions and Action Plans, (Barcelona Convention, HELCOM etc.), RFMOs (eg GCFM)
- There are knowledge gaps to be filled.

## **2. Next Steps**

- Further policy workshop inclusive of key Range States from North Africa (possibly including American colleagues as well)
- Questionnaire to identify gaps to be sent to Range States before next meeting
- Feasibility assessment of including American eel in Instrument
- Feasibility of Sargasso Sea protection under possible international instrument
- Bring to the attention of CMS Parties, seeking their advice
- SSC to look at CMS criteria more closely
- Secretariat to brief GCFM on status



## 1<sup>st</sup> Range State Workshop on the European Eel Eels WS1

*Galway, Ireland, 13 - 14 October 2016*

UNEP/CMS/EelsWS1/Report

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