Mission statement

To raise the profile of freshwater biodiversity through: (1) coordinating freshwater species conservation activities through the SSC, highlighting emerging patterns and ensuring that increasing attention is given to issues concerning freshwater biodiversity conservation; (2) making freshwater recommendations to the SSC based on the work of the Freshwater Conservation Committee, and ensuring that freshwater species conservation issues are well represented within the SSC and the wider IUCN; (3) assisting the SSC by providing authority and credibility in its engagement with policy processes and major freshwater related events.

Projected impact for the 2017-2020 quadrennium

By 2020, we envision that the Freshwater Conservation Committee (FCC) can provide stronger recommendations for freshwater conservation priorities, in terms of which species and regions require most urgent action, and how to link conservation action between regions through habitat connectivity. We can achieve this through mobilising the newly assimilated Red List assessment data for application to management and policy. Conservation action will be directed at selected, leading threats to freshwater ecosystems, in particular, invasive species and fragmentation of habitats by dams. By working with partners such as the IUCN World Commission on Protected Areas (WCPA) Freshwater Specialist Group, we can provide guidance for better conservation of freshwater ecosystems in protected areas. By facilitating communication and collaboration between SSC Specialist Groups with a freshwater interest, and by linking this to the work of other IUCN Commissions and the Secretariat, as well as contributing to other major freshwater initiatives beyond IUCN, we will ensure that future freshwater conservation planning is more fully integrated across IUCN’s programmes. Conservation of freshwater species and habitats will be given a higher profile as a core component in wider landscape management, conservation and policy making. Freshwater conservation initiatives will be better coordinated to complement each other, rather than operating in parallel.

Targets for the 2017-2020 quadrennium

Assess

Red List: complete Red List assessments of all freshwater species targeted by IUCN for global coverage (ca. 38,300 species).

Research activities: (1) develop a programme of Conservation Evidence, documenting conservation success (e.g. what is the relationship between conservation success and protected areas, and links between biodiversity and ecosystem services/human health); (2) Ramsar site review; (3) conduct a metadata analysis of freshwater biodiversity and dams/other infrastructure.

Plan

Planning: (1) promote the inclusion and effective management of freshwater ecosystems in protected areas and other effective area-based conservation measures (OECMs); (2) provide input into the development and implementation of the IUCN 2021–2024 Programme of Work.

Policy: (1) publish a paper on review of threats to freshwater wetlands; (2) ensure that freshwater ecosystems are better integrated into the post-2020 global biodiversity outlook.
Act

Conservation actions: develop projects and collaborations focused on freshwater invasive species.

Network

Capacity building: (1) plan and run a workshop, focused on challenges, opportunities and priorities for freshwater biodiversity conservation, at the 2019 SSC Leaders’ Meeting; (2) following the freshwater workshop at the 2019 SSC Leaders’ Meeting, plan and run a cross-linked series of freshwater themed events at the 2020 World Conservation Congress, focused on challenges, opportunities, and priorities for freshwater biodiversity conservation.

Proposal development and funding: fundraise for projects/Programme Officer.

Synergy: (1) be a key partner in developing the IUCN One Programme Strategy for Freshwater Biodiversity (as defined by a white paper describing the objectives of the strategy); (2) develop and help coordinate an IUCN Freshwater Network, for sharing information and freshwater objectives, with an online mechanism for sharing information; (3) review freshwater targets and objectives of other Specialist Groups to identify areas of shared or supporting interest; (4) be a key partner in developing the new initiative, the Alliance for Freshwater Life (AFL); (5) be a key partner in a new initiative/NGO focused on fundraising for freshwater biodiversity conservation; (6) be a source of advice and coordination on freshwater activities in SSC and partners; (7) support, promote and communicate the activities of the IUCN SSC Task Force on Global Freshwater Macroinvertebrate Sampling Protocols (MSP TF). The objectives of the MSP TF are integrated into FCC reporting; the FCC will assist the MSP TF with fundraising activities over the quadrennium period; when FCC is consulted for advice by IUCN on matters relating to macroinvertebrates and freshwater ecosystem health, the FCC will consult with the MSP TF; FCC and MSP TF will collaborate in the production of key papers/reports that relate macroinvertebrate biodiversity to freshwater ecosystem health.

Technical advice: collaborate with Indianapolis Zoo in determining the functions of the Freshwater Officer position in the newly forming Global Centre for Species Survival.

Communicate

Communication: (1) create a list of ‘25 top species’ – representative across taxonomic groups and regions – that highlight some of the main issues associated with freshwater ecosystem conservation; (2) establish effective outreach and communications; (3) assist the BBC Natural History Unit in development of freshwater stories for their Planet Earth III series.

Activities and results 2020

Assess

Red List

i. The Freshwater Biodiversity Unit, led by Will Darwall, assessed 6,010 freshwater species in 2020 (3,676 fishes, 1,289 Odonates and 1,045 species from other freshwater taxa). Eighteen (18) regional assessments were carried out (+1,600 published individual species assessments, and twice as much to be published, not counting Brazil). Both Co-Chairs have been actively involved in the publication of the report for Mexican freshwater fishes (536 species), and the assessment of 223 freshwater fish species from Central America. This last activity has led to the creation of a Mesoamerican Freshwater Fish Conservation Group. (KSR #1)
Plan
Planning
i. No significant progress was made in 2020 promoting the inclusion and effective management of freshwater ecosystems in protected areas and OECMs. The Committee will work with the WCPA Freshwater Specialist Group on this activity during the next quadrennium. (KSR #26)

ii. FCC members have provided recommendations on the IUCN Programme of Work as it has been developed. Many members attended a session on the Programme during the 2019 SSC Leaders’ Meeting and made recommendations for strengthening the freshwater component of the programme. Specific written recommendations were then supplied to the IUCN Secretariat in follow up, and additional comments were provided on the draft circulated in 2020. (KSR #18)

Policy

i. FCC members have continued to provide feedback to IUCN’s Global Species Programme and the SSC Post-2020 Biodiversity Targets Task Force, in terms of review and editing of the Post-2020 Biodiversity Framework to ensure freshwater is properly referenced. Co-Chair Harrison also contributed to: Williams, B.A., et al. (2021). ‘A robust goal is needed for species in their associated ecosystems as corridors in a changing climate; WCC-2020-Res-012: Aquatic biodiversity conservation of shallow marine and freshwater systems; WCC-2020-Res-018: Valuing and protecting inland fisheries’ and one Motion still under review (013 – Protection of Andes-Amazon rivers of Peru: the Marañón, Ucayali, Huallaga and Amazonas, from large-scale infrastructure projects). (KSR #18)

ii. FCC members have provided recommendations on the IUCN Programme of Work as it has been developed. Many members attended a session on the Programme during the 2019 SSC Leaders’ Meeting and made recommendations for strengthening the freshwater component of the programme. Specific written recommendations were then supplied to the IUCN Secretariat in follow up, and additional comments were provided on the draft circulated in 2020. (KSR #18)

Network

i. The outputs of a workshop, focused on challenges, opportunities, and priorities for freshwater biodiversity conservation, at the 2019 SSC Leaders’ Meeting have been informative to our Committee planning through 2020. (KSR #18)

ii. Our engagement in planning for the World Conservation Congress has been one of the main areas of activity for the FCC in 2019–2020. FCC members have contributed as lead, or as collaborators, to planning the following six Forum sessions: ‘Opening Plenary: Our Freshwater Global Risk - Taking Actions to Reverse the Trend’; ‘A cascade of benefits from healthy freshwater systems’; ‘Protecting aquascapes: integrating freshwater, estuarine and marine conservation’; ‘Improving Protected Area designation, management and design for freshwater biodiversity’; ‘Global Invasive Alien Species Target for the Post-2020 Global Biodiversity Framework’; ‘Scaling up – expanding action on the global crisis facing freshwater biodiversity’. Co-Chair Harrison is also part of the Planning Committee for the Freshwater Theme events. FCC members have also provided input to the development of three successful Resolutions (WCC-2020-Res-008: Protecting rivers and their associated ecosystems as corridors in a changing climate; WCC-2020-Res-012: Aquatic biodiversity conservation of shallow marine and freshwater systems; WCC-2020-Res-018: Valuing and protecting inland fisheries) and one Motion still under review (013 – Protection of Andes-Amazon rivers of Peru: the Marañón, Ucayali, Huallaga and Amazonas, from large-scale infrastructure projects). (KSR #18)

Synergy

i. Members of the Freshwater Conservation Committee have remained closely involved with the development of the Alliance for Freshwater Life (AFL); however, there was relatively little further development of the AFL during 2020. In early 2021, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin (IGB) advertised for a Sustainability Research Liaison Officer whose role will include promoting AFL, so we expect more development during 2021. Committee members have also provided input to the development of three successful Resolutions (WCC-2020-Res-008: Protecting rivers and their associated ecosystems as corridors in a changing climate; WCC-2020-Res-012: Aquatic biodiversity conservation of shallow marine and freshwater systems; WCC-2020-Res-018: Valuing and protecting inland fisheries) and one Motion still under review (013 – Protection of Andes-Amazon rivers of Peru: the Marañón, Ucayali, Huallaga and Amazonas, from large-scale infrastructure projects). (KSR #29)
The mission of Shoal is to engage a wide range of organisations to accelerate and escalate action to save the most threatened fish and other freshwater species. Co-Chair Harrison assisted in the process of interviewing and selecting a Conservation Programme Manager for Shoal and has participated in weekly meetings with the Shoal staff team. Other Committee members (e.g. Topis Contreras-MacBeath, Tim Lyons, recently recruited into the Committee) have also provided advice and input to Shoal. In 2020 Co-Chair Topiltzin Contreras talked remotely with Mike Baltzer, Executive Director of Shoal, to discuss possible fish conservation projects related to Mexican freshwater fish species; several initiatives are currently being integrated related to this. The FCC is listed as a strategic partner of Shoal. (KSR #29)

The Co-Chairs provided review and recommendations on the structure and function of the IUCN SSC Task Force on Global Freshwater Macroinvertebrate Sampling Protocols (MSP TF) to the two potential Co-Chairs proposing the Task Force. Similar information was provided to the SSC Steering Committee when this Task Force. The status and distribution of freshwater fishes in Mexico. Cambridge, UK and Albuquerque, New Mexico, USA: IUCN and ABQ BioPark.). FCC members have also worked individually on publications, and a few members have collaborated on publications (e.g. during 2019 some members collaborated on Tickner, D., et al. (2020). ‘Bending the Curve of Global Freshwater Biodiversity Loss: An Emergency Recovery Plan’. Bioscience 70:330–342. https://doi.org/10.1093/biosci/biaa002). The FCC has been running a Twitter account since 2014; it has 738 followers, but the Committee still needs to develop its own website and Facebook page. Topis Contreras gave five Keynote Conferences related to the work of the FCC in 2020 (‘Mexico, Central America & the Caribbean Status and trends’ in the Global Swimways Webinar Marathon (14 May); ‘Estatus y distribución de los peces dulceacuícolas de México’, Simposio Ictiología en Mesoamérica (13 August); ‘Los peces dulceacuícolas de México, en peligro inminente’, Semana de la Biodiversidad CONABIO (27 May); ‘Flora, Fishes, and fireflies: Assessing Species in Peril in New Mexico and Abroad’ ABQ Biopark (8 October); ‘Hacia una alianza para la conservación de los peces dulceacuícolas de Mesoamérica’ Conversatorio SIMAC (27 November). (KSR #28)

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Summary of activities 2020

Components of Species Conservation Cycle: 4/5

Assess 1
Plan 3
Network 6
Communicate 1

Main KSRs addressed: 1, 7, 14, 18, 21, 26, 28, 29
Resolutions addressed: WCC-2016-Res-062, WCC-2016-Res-086

KSR: Key Species Result