

2021 Report

IUCN SSC Horseshoe Crab Specialist Group



CO-CHAIR

Mark L. Botton

Department of Natural Sciences, Fordham University, New York, New York, US



CO-CHAIR

Paul K.S. Shin

Department of Biology and Chemistry, City University of Hong Kong, Kowloon, Hong Kong, China

RED LIST AUTHORITY COORDINATOR

Billy K.Y. Kwan

College of Marine Sciences, Beibu Gulf University, Qinzhou, Guangxi, China

NUMBER OF MEMBERS

89

SOCIAL MEDIA AND WEBSITE

Facebook: Horseshoe Crabs Group,
Asian Horseshoe Crab Group

Mission statement

The four extant species of horseshoe crabs are imperilled because of overfishing for use as food, bait, the production of biomedical products derived from their blood, and because of habitat loss or alteration due to shoreline development and armouring against coastal erosion. The group aims to protect horseshoe crabs in the world through collaborative effort in conservation of their populations and habitats, and in raising public awareness of their importance in evolutionary history, marine coastal ecology and biomedical uses.

Projected impact 2021–2025

Two species of horseshoe crabs in Southeast Asia, the Mangrove Horseshoe Crab (*Carcinoscorpius rotundicauda*) and Coastal Horseshoe Crab (*Tachypleus gigas*), are currently Data Deficient. Our group is currently working on updating their Red List status based on information being provided by our members residing in the range states of both species. The assessment of the Green Status of Species has been completed for the Vulnerable American Horseshoe Crab (*Limulus polyphemus*) and is being prepared for the Endangered Tri-spine Horseshoe Crab (*Tachypleus tridentatus*). Collectively, these activities should be

completed during this quadrennium and lead to greater protection for all four species of horseshoe crabs.

Targets 2021–2025

ASSESS

T-003 Complete the Green Status of Species assessment for the Tri-spine Horseshoe Crab (*Tachypleus tridentatus*).

T-004 Complete the Red List assessment for the two species of Asian horseshoe crabs, the Mangrove Horseshoe Crab (*Carcinoscorpius rotundicauda*) and the Coastal Horseshoe Crab (*Tachypleus gigas*).

PLAN

T-005 Conduct regional conservation planning for the American Horseshoe Crab (*Limulus polyphemus*) to identify local and regional actions.

T-006 Develop a conservation plan for the Tri-spine Horseshoe Crab (*Tachypleus tridentatus*) through the Conservation Planning Specialist Group's (CPSG) species conservation process.

T-007 Plan worldwide outreach/education events concerning the conservation of horseshoe crabs and their coastal habitats for the annual International Horseshoe Crab Day on 20 June using social media.

ACT

T-008 Explore the feasibility of naming horseshoe crabs as a World Heritage Species through UNESCO.

NETWORK

T-001 Develop best practices for adult and juvenile horseshoe crab population assessments for capacity building among members of the Specialist Group.

T-002 Establish an Asian Horseshoe Crab Observation Network programme in partnership with government agencies, NGOs and/or conservation organisations.

T-009 Conduct two online training sessions/seminars on juvenile horseshoe crab survey protocols through the Asian Horseshoe Crab Working Group to support participants joining the Asian Horseshoe Crab Observation Network.

COMMUNICATE

T-010 Publish a book based on papers presented at the 3rd and 4th International Workshops on the Science and Conservation of Horseshoe Crabs in 2015 and 2019.

T-011 Publish an overview on the threats and conservation of horseshoe crabs for *Imperiled: The Encyclopedia of Conservation*.

T-012 Organise/coordinate at least three meetings or workshops on the science and conservation of horseshoe crabs for various stakeholders.



Survey for juvenile horseshoe crabs in China, as part of the Asian Horseshoe Crab Monitoring Network
Photo: Billy Kwan

Activities and results 2021

ASSESS

Red List

T-004 (KSR 6)

Number of species that have been assessed through the different tools: 0

Result description: Data and information were collected for the Red List assessment of the Mangrove Horseshoe Crab (*Carcinoscorpius rotundicaudata*) across its geographical range in Asia and the Red List assessment document is being prepared.

PLAN

Planning

T-007 (KSR 9)

Participation in outreach/education events on International Horseshoe Crab Day: 25

Result description: Beginning in 2020, each 20 June we celebrate International Horseshoe Crab Day with a range of events including talks and educational activities in the field. Because of COVID-19, the majority of the activities held in 2020 and 2021 were done online. Examples of some of these activities can be seen in a series of YouTube videos: <https://www.youtube.com/playlist?list=PLdrZ71BTGCwwZpDoS-1nBNeiu6GM95eiUY>.

In 2021, a total of 25 activities were undertaken worldwide in celebration of the Second International Horseshoe Crab Day, including 13 public awareness programmes, five workshops and conferences, four school talks and sharing sessions, two art design competitions, and one photograph exhibition. All these public participation activities were organised in Mainland China, Hong Kong and Taiwan regions, Japan, Malaysia, India, Bangladesh, USA and Mexico.

NETWORK

Capacity building

T-001 (KSR 2)

Documentation of standardised survey protocols: Achieved.

Result description: With the establishment of the Asian Horseshoe Crab Observation Network in 2021, a locally-adapted standard for collecting and reporting juvenile population data has been developed in China, together with on-site training and technical support. A total of 23 datasets of

juvenile population surveys in China were collected. Such data will be used to further develop the assessment protocol for juvenile horseshoe crabs in Asia.

T-009 (KSR 2)

Number of training sessions/seminars offered: 4

Result description: Three on-site training sessions were conducted in the provinces of Fujian (May 2021), Hainan (June 2021) and Guangxi (July 2021) in mainland China, and one online workshop was organised in June 2021 for participants from Hong Kong.

Synergy

T-002 (KSR 2)

Collection of standardised Asian horseshoe crab population data across their geographical range: Ongoing.

Result description: The programme has started in China with plans to expand to other countries in Asia in the future. A description of the project was published in the 15 April 2021 issue of the SSC Newsletter (<https://www.iucn.org/news/species-survival-commission/202104/a-program-implementing-effective-regional-conservation-actions-asian-horseshoe-crabs>). Since the publication of this newsletter, a total of 18 universities, NGOs, research institutes and management agencies for Marine Protection Areas (MPAs) have joined the monitoring network, with 25 monitoring stations established along the Chinese coast.

COMMUNICATE

Communication

T-010 (KSR 12)

Number of publications: 1

Result description: The book, entitled *International Horseshoe Crab Conservation and Research Efforts: 2007- 2020. Conservation of Horseshoe Crabs Species Globally* and published by Springer Nature, will be available in printed form in early 2022 (<https://link.springer.com/book/9783030823146>).

T-011 (KSR 12)

Number of publications: 1

Result description: This publication summarises the major threats to all four species of horseshoe crabs and describes conservation strategies recommended by the Horseshoe Crab Specialist Group.

T-012 (KSR 12)

Number of meetings/workshops: 3

Result description: Three events have been organised to date: (1) International Symposium on Horseshoe Crab Conservation 2021 (virtual, held 20 June 2021; https://www.youtube.com/watch?v=Be_eeY-BUbuA&t=1179s); (2) Special Session, '50 Years of Horseshoe Crab Research Around the Globe' (virtual, held 4–5 November 2021), as part of the Coastal and Estuarine Research Federation Meetings; (3) 2021 International Conference of Asian Horseshoe Crab Science and Conservation (on-site in Xiamen, China and virtual, held 4–5 December 2021), with 160 participants from 12 countries/regions, and 32 oral and 21 poster presentations. Planning has begun for the 5th International Workshop on the Science and Conservation of Horseshoe Crabs, tentative date Summer 2024.

Acknowledgements

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Summary of achievements

Total number of targets 2021–2025: 12

Geographic regions: 4 Global, 3 America, 7 Asia

Actions during 2021:

Assess: 1 (KSR 6)

Plan: 1 (KSR 9)

Network: 3 (KSR 2)

Communicate: 3 (KSR 12)

Overall achievement 2021–2025:

