IUCN SSC Horseshoe Crab Specialist Group



2020 Report





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Co-Chairs

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Location/Affiliation

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(3) USGS Leetown Science Center, Kearneysville, West Virginia, US

Number of members

79

Social networks

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, 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 for the 2017-2020 quadrennium

The three species of horseshoe crabs in Asia, Tachypleus tridentatus, T. gigas and Carcinoscorpius rotundicauda, are currently listed as Data Deficient, and we expect that our current activities will lead to a change in this status in the current quadrennium. While it is premature to assign a status without a formal review of the data, most studies indicate a moderate to severe threat to local populations and a lack of genetic connectivity among populations. We expect to submit a Red List assessment for each of the three Asian horseshoe crabs as an important first step in leading to greater conservation measures for these animals, including greater protection for essential spawning and juvenile nursery habitats. Our group will continue being an active advocate for these unique animals through the support of various outreach and educational programmes that our members have developed.

Targets for the 2017-2020 quadrennium

Assess

Green List: complete Green List assessment of American Horseshoe Crab (*Limulus polyphemus*) and Tri-spine Horseshoe Crab (*Tachypleus tridentatus*) through assessing the recovery of species' populations and measuring their conservation success.

Red List: update Red List assessments of all three Asian species of horseshoe crab.

Network

Capacity building: develop best practices for adult and juvenile horseshoe crab population assessments.

Communicate

Research activities: 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.

Scientific meetings: (1) coordinate the 4th International Workshop on the Science and Conservation of Horseshoe Crabs in summer 2019; (2) organise a Special Session at the 148th Annual Meeting of the American Fisheries Society, Atlantic City, New Jersey, US, in August 2018.

Activities and results 2020

Assess

Green List

i. A working team has been established to conduct the Green List assessment for the Tri-spine Horseshoe Crab. Background information and guidelines on the assessment process have been forwarded to all team members for reference before the start of discussion and assessment in 2021. (KSR #11) A clay-based drama at Balasore beach, Odisha, India to celebrate 1st International Horseshoe Crab Day Photo: Siddhartha Pati

First member organization of Asian Horseshoe Crab Observation Network in Beihai, Guangxi, China Photo: Billy Kwan





Red List

i. The Red List assessment for the remaining two Asian horseshoe crab species (*Tachypleus gigas* and *Carcinoscorpius rotundicauda*) has been ongoing and planned for completion in 2021. (KSR #2)

Network

Capacity building

I. An Asian Horseshoe Crab Observation Network has been established to train participating teams to use a standardised survey protocol to record and assess population of juvenile horseshoe crabs on their spawning/ nursery beaches. Currently, 12 organisations in mainland China and Hong Kong have joined the network. (KSR #18)

Communicate

Research activities

i. All manuscripts for the book on the science and conservation of horseshoe crab have been reviewed, finalised and submitted to the publisher for typesetting. (KSR #28, 43)

Scientific meetings

i. One of the outcomes of the 2019 meeting was the designation of 20 June every year as International Horseshoe Crab Day. In 2020, we celebrated the First International Horseshoe Crab Day with activities hosted by many people and organisations across Asia and North America, including webinars, public talks, exhibitions, dramas and video clips. (KSR #28)



Acknowledgements

We thank the many people and organisations across Asia and North America who contributed to and participated in celebration of the First International Horseshoe Crab Day on 20 June 2020, so as to raise public awareness of the importance of conservation of horseshoe crabs globally.

Summary of activities 2020

Components of Species Conservation Cycle: 3/5

| Assess | 2 | Ш | |
|--|---|----|--|
| Network | 1 | I. | |
| Communicate | 2 | Ш | |
| Main KSRs addressed: 2, 11, 18, 28, 43 | | | |

KSR: Key Species Result

Celebration of 1st International Horseshoe Crab Day at Beibu Gulf University, Guangxi, China Photo: Billy Kwan