



**PROJECT  
SEAHORSE**  
advancing marine conservation



## **Implementing CITES for seahorses in Viet Nam – A consultative meeting**

5 April 2017, Hai Phong, Viet Nam

Hosted by: Viet Nam's Research Institute for Marine Fisheries

### **Overview**

Viet Nam's Research Institute for Marine Fisheries hosted a meeting on 5 April 2017, the purpose of which was to share the findings of Project Seahorse's collaborative fisheries and trade surveys for seahorses, plan the way forward for seahorse conservation in Viet Nam, and for the eventual removal of the CITES imposed export ban on *Hippocampus kuda*.

Dr. Sarah Foster, Project Manager for Project Seahorse – acting as the IUCN SSC Specialist Group for seahorses – presented the research findings, sought feedback from authorities, and led a discussion of the research implications for moving toward full national implementation of CITES for seahorses.

The meeting was structured around the following components:

1. CITES, Vietnam and seahorses – the background.
2. Review of agreed action plan for moving Vietnamese seahorse fisheries and trades toward sustainability.
3. Trade research – methods, key results.
4. Discussion of trade research findings and way forward.
5. Review of CITES Recommendations for *Hippocampus kuda* – planning the way forward.
6. Meeting wrap up.

What follows is a summary of the key meeting discussions, and agreed actions going forward. The list of participants is at the end of this report.

### **Trade research**

Thanks to funding through the Secretariat, Project Seahorse – acting as the IUCN SSC Specialist Group for seahorses – co-organized a workshop with CITES Viet Nam in May 2013 – the key output of which was an action plan for moving Viet Nam's seahorse fisheries and trades toward sustainability. One action identified in that plan was carrying out fisheries and trade surveys throughout Viet Nam – updating the work Project Seahorse did in the 1990s. New trade surveys and analyses were needed to generate vital updated knowledge about seahorse biology, fisheries and trade – providing the baseline on which to build a plan for sustainable seahorse fisheries and trades in Viet Nam.

Project Seahorse managed to secure two small grants to fund this research. The funding

covered the costs of the fieldwork. The considerable Project Seahorse staff involvement in the project has been an in kind contribution from Project Seahorse.

The research was carried out in November 2016 through January 2017 by a Vietnamese researcher from Viet Nam's Institute of Oceanography (IO) (Dr. Do Huu Hoang), under an existing and active MOU between the University of British Columbia and Viet Nam's Research Institute for Marine Fisheries (RIMF). Dr. Hoang was highly qualified to conduct the surveys – he carried out the previous trade surveys in Viet Nam, and has extensive experience in seahorse identification and culture.

**Dr. Sarah shared the preliminary results of the fisheries and trade surveys in Viet Nam with meeting participants** – with an aim to get feedback from national CITES and fisheries Authorities that would strengthen the results. This aim was most certainly met.

**The bulk of the discussion focused on the analyses that scale up fisher reported catch rates to total catch volumes across Viet Nam.** No one doubted that many seahorses are being caught in Viet Nam's multiple coastal fisheries – and that this take (and subsequent trade) is unreported, unregulated, and a conservation concern. However, several participants – including Dr. Dzung, Mr. Manh, and Dr. Bat – **expressed that the analyses should be as robust as possible – as the estimates will become the new baseline for seahorse fisheries in Viet Nam, and form the basis of future policies in that respect.**

It was agreed that the estimates should be based on the best available scientific information. However, Dr. Sarah further expressed the fact that neither low sample sizes, nor imperfect information, were reasons to hold back the analyses. Viet Nam should act based on the information available to it – balancing the need for scientific certainty with the need to employ the precautionary principle for seahorses conservation.

**To ensure the scientific integrity of the analyses, participants requested that Project Seahorse take into consideration the complicated nature of Viet Nam's coastal fisheries, and any existing data held by RIMF,** in estimates of catch rates and catch volumes. These considerations are detailed below. Project Seahorse will do its best to account for the factors that might influence estimates of catch rates / catch volumes – if the information exists for them to do so. Nonetheless, it will not be possible for the analyses to fully account for every factor that might influence estimates of catch rates / catch volumes.

Thus, participants noted it would be **important to determine the range and/or error associated with the estimates of catch rates and catch volumes.** Furthermore, **the report should discuss the possible sources of error in catch rate / catch volume estimates – some of which would result in overestimations, and others in underestimations.** It was also noted that volume information from other levels of the trade chain could possibly be used to validate the fisheries data, although Dr. Sarah explained that the data from other levels of the supply chain are limited – and not as robust as the information from fisheries

The following are the factors to be considered in analyses, with respect to Viet Nam's fisheries, and existing data held by RIMF --

**The following factors should be taken into account when estimating seahorse catch volumes in Viet Nam, and/or their potential influence on the estimates discussed:**

- Variations in HP across trawlers. This should be considered in estimates of trawler fishing effort.
- Fishers/boats landing seahorses in one province may have travelled to other provinces to fish – thus the province of landing does not necessarily reflect the province of extraction. This will impact the ability to assess geographic variation in seahorse catches - but not in the overall estimate of seahorse catch.
- Cambodian fishers are known to land their catch in Phu Quoc – so some of the landings in Phu Quoc may not be from Vietnamese boats or the Vietnamese EEZ. This should be considered in estimates of fleet size and catch volumes from Vietnam’s waters.
- Vietnamese boats fish in Indonesian waters. This should be considered in estimates of fleet size and catch volumes from Vietnam’s waters.
- Phu Quoc trawl boats are not all the same – there are trawl boats that target seahorses that have different gear and behaviour from the other trawl boats. This information is available from Project Seahorse and RIMF past fisheries research in Phu Quoc – and should be considered in estimates of catch rates and volumes for this region.
- Although not documented in our surveys, participants noted that seahorses are caught in crab traps in Phu Quoc (though in relatively low numbers).
- Although not documented in our surveys (due to weather constraints) – participants were confident that seahorses are landed and traded from islands in the north of Vietnam (Co To and Cat Ba Islands).
- Fishers switch gears during the year - they do not use the same gear all year. This should be accounted for in estimates of number of days/months fished by a gear (seasonality of gear use).
- Other factors also affect seasonal variations in fishing effort and catch rates - e.g. weather, holidays, boat maintenance – and should be considered as best possible in estimates of days/months fished by a gear (seasonality of gear use).
- The sample sizes for gears other than single trawls are low – and this should be considered in estimates of catch rates / catch volumes.

**The following existing RIMF information should be taken into account when estimating seahorse catch volumes in Viet Nam, and/or its potential influence on the estimates discussed:**

- RIMFs information on the **BAC of trawl boats** (boat activity coefficient) for southeast and southwest Viet Nam should be used in scaling up catch rates to catch volumes for this gear type.
  - For pair trawls the BAC ranges from 0.7-0.9 of a day. Therefore the estimated days fished per month for this gear type should range from 21-27 days (based on a 30 day month).
  - For single trawls the BAC ranges from 0.4-0.8 of a day. Therefore the estimated days fished per month for this gear type should range from 12-24 days (based on a 30 day month).
  - Mr. Cuong or Dr. Bat will send Dr. Sarah the source of this information.
  - *Update: Dr. Bat sent Dr. Sarah this data, and it has been incorporated into the*

*fisheries analysis.*

- RIMF has collected information on **the characteristics of Viet Nam's fisheries** for the past two years. This includes information on the distribution and fleet size of some gears used across Viet Nam.
  - This information should be used to scale up of catch rates to catch volumes across gear types.
  - Dr. Bat will send Dr. Sarah this information – but Dr. Sarah will require assistance translating it into English.
  - Dr. Sarah will send Dr. Bat a table, indicating the gears and provinces for which we need fleet sizes.
  - *Update: Dr. Bat sent Dr. Sarah this data, and it has been incorporated into the fisheries analysis.*
- RIMF has limited information on **seahorse catches from its research trawls** – though notes the trawls are not carried out in seahorse preferred habitats.
  - This information should be incorporated, if possible, into estimates of trawler catch rates in Viet Nam.
  - RIMF has already extracted the seahorse information from its scientific trawls, and will send Dr. Sarah this information – but Dr. Sarah will require assistance translating it into English.
  - *Update: Dr. Bat confirmed to Dr. Sarah that there is no useful seahorse data from the research trawls.*

### **Lifting CITES ban for *H. kuda* from Viet Nam**

Dr. Sarah led participants through the seven research and action Recommendations issued to Viet Nam by CITES. Project Seahorse considers that there is now enough information for CITES Viet Nam to satisfy the CITES Recommendations ***with respect to the export of F-code H. kuda*** from Viet Nam seahorse farms.

Dr. Sarah reported that **Project Seahorse would support the following means of making non-detriment findings (NDFs) for a live, F-code, export of *H. kuda* from Viet Nam:**

- **An annual quota for wild broodstock**, totaling several thousand individuals of wild-sourced *H. kuda* (across all farms, NOT per farm). *The proposed quota will be refined as we refine our trade analysis.*
- **Monitoring of seahorse landings at regular intervals across several ports, and several gear types.** We would encourage this monitoring to include all seahorses species landed by fisheries at the focal ports - and not just *H. kuda* - in support of seahorse conservation in general (see below). Project Seahorse has a toolkit available for such monitoring, and will make recommendations as to which ports/gears to monitor in its final trade report submission to Viet Nam.
- **Monitoring of wild broodstock use by seahorse farms.** Project Seahorse and Viet Nam's Institute of Oceanography have already developed a protocol for tracking use of wild broodstock by seahorse farms in Viet Nam. This protocol was presented to the

participants at the meeting.

The monitoring of both fisheries landings and broodstock should be used by Viet Nam to track population trends of *H. kuda* (and other species), and refine its quota for wild broodstock in the spirit of adaptive management.

The fisheries landings and broodstock monitoring protocols are available at [www.projectseahorse.org/ndf-vietnam](http://www.projectseahorse.org/ndf-vietnam) (password: seahorseVN!)

### **Seahorse conservation in general**

Participants discussed a **National Plan of Action (NPOA) for seahorse conservation in Viet Nam** - modelled off the NPOA for sea turtles. Project Seahorse would be happy to support the development of an NPOA for seahorses in Viet Nam, should funding become available to support collaboration in that respect.

As an immediate action, Project Seahorse recommends Viet Nam **establish landings monitoring for seahorses across several ports**. This monitoring should cover all species caught in Vietnamese fisheries, and all gear types that catch seahorses. Project Seahorse has a toolkit available for such monitoring (see above), and will make recommendations as to which ports/gears to monitor in its final trade report submission to Viet Nam.

### **Meeting participants**

The invited participants were as follows. In addition, there were about 16 observers from RIMF – for a total attendance of over 25 participants.

#### **Directorate of Fishery – Department of Conservation and Aquatic Resources Development (DECAP):**

Dr. Nguyen Dzung – Director ([nguyendzung74@gmail.com](mailto:nguyendzung74@gmail.com))

Mr. Nguyen Tuan Anh ([anhtuan@kiemlam.org.vn](mailto:anhtuan@kiemlam.org.vn))

#### **Ministry of Agriculture and Rural Development (MARD) – Viet Nam CITES Management Authority:**

Mr Vuong Tien Manh - Deputy Director ([hyderabadmanh@gmail.com](mailto:hyderabadmanh@gmail.com))

#### **MARD – Research Institute for Marine Fisheries (RIMF):**

Dr. Nguyen Khac Bat - Dr. of Marine Science, Deputy Director ([nkbat2005@gmail.com](mailto:nkbat2005@gmail.com))

Mr. Nguyen Duy Thanh - Head, Department of Scientific Administration, International Cooperation and Education ([ndthanh@rimf.org.vn](mailto:ndthanh@rimf.org.vn))

Ms Doan Thu Ha - Deputy Head, Department of Scientific Administration, International Cooperation and Education ([dtha@rimf.org.vn](mailto:dtha@rimf.org.vn); [thuha221073@gmail.com](mailto:thuha221073@gmail.com))

Mr. Tran Van Cuong - Deputy Head, Department of Marine and Fisheries Resources ([tvuong@rimf.org.vn](mailto:tvuong@rimf.org.vn))

Mr. Do Anh Duy - Acting Head, Department of Marine Biodiversity and Conservation ([daduy@rimf.org.vn](mailto:daduy@rimf.org.vn))

Mr. Nguyen Van Hieu - Deputy Head, Department of Marine Biodiversity and Conservation  
([nvhieu@rimf.org.vn](mailto:nvhieu@rimf.org.vn))

**Viet Nam Institute of Oceanography:**

Dr. Do Huu Hoang ([dohuuhoang2002@yahoo.com](mailto:dohuuhoang2002@yahoo.com))

**The University of British Columbia – Project Seahorse:**

Dr. Sarah Foster ([s.foster@oceans.ubc.ca](mailto:s.foster@oceans.ubc.ca))