

EUROPEAN UNION OF AQUARIUM CURATORS REPORTING FORM FOR IN SITU CONSERVATION PROJECTS FUNDED

In search of the last remaining representatives of the only recently described and already Critically Endangered Spotted Softshell Turtle

Pelodiscus variegatus in Vietnam

2 NAME OF APPLICANT

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WHAT YEAR WAS YOUR PROJECT FUNDED BY EUAC? 2019

3 LOCATION OF PROJECT (REGION & COUNTRY) Vietnam				
4 PROJECT START AND END DATES: Summer 2019 to summer 2020				
5 PROJECT CO-ORDINATOR, ADDRESS AND INST (IF DIFFERENT FROM APPLICANT)	FITUTIONAL AFFILIATION			
6 PROJECT TYPE				
(TICK ANY COMPONENTS THAT APPLY) x BIOLOGICAL/ECOLOGICAL RESEARCH □ VETERINARY/CONSERVATION MEDICINE □ ANIMAL WELFARE x CAPTIVE BREEDING x RE-INTRODUCTION/RE- STOCKING/TRANSLOCATION □ HUMAN-WILDLIFE CONFLICT	X EDUCATION/PUBLIC AWARENESS ☐ TRAINING/WORKSHOPS ☐ COMMUNITY-BASED/SOCIAL POLICY ☐ ECOTOURISM/SUSTAINABLE DEVELOPMENT ☐ SUSTAINABLE USE ☐ WARDENING/LAW ENFORCEMENT ☐ PROTECTED AREAS MANAGEMENT ☐ OTHER: SEARCH FOR REMAINING NATURAL POPULATIONS; FIRST POPULATION ASSESSMENT / SUITABLE HABITAT AVAILABILITY; INVESTIGATING THE LOCAL ANIMAL TRADE / FARMS FOR POTENTIAL INDIVIDUALS OF PELODISCUS VARIEGATUS; GENETIC SCREENING OF POTENTIAL FINDINGS IN TRADE / FARMS			
7 FOCAL SPECIES (COMMON AND SCIENTIFIC NAME) Spotted softshell turtle (<i>Pelodiscus variegatus</i>)				

E.U.A.C.

8 IUCN RED LIST STATUS (OR OTHER THREAT LISTING) OF FOCAL SPECIES

CITES YES NO APPENDIX

Not yet as the species was only recently (in early 2019) described (FARKAS, B., ZIEGLER, T., PHAM, C. T., ONG, A. V. & U. FRITZ 2019: A new species of Pelodiscus from northeastern Indochina (Testudines: Trionychidae). – ZooKeys 824: 71-86.)

Until now, the newly described Spotted Softshell Turtle was considered part of the Lesser Chinese Softshell Turtle *Pelodiscus parviformis*, which was discovered by Chinese researchers in 2011. *P. parviformis* was already considered threatened, and now that its southern representatives have been separated as a different species, the Spotted Softshell Turtle, the overall population of each species is even smaller than previously thought.

Rhodin et al. (2018) suggested for *P. parviformis* the status "Critically Endangered (CR)" by the IUCN Red List of Threatened Species. *P. parviformis* is listed on CITES Appendix II. Consequently, also *P. variegatus*, which was included in *P. parviformis* by Rhodin et al. (2018), should be included in CITES at the next opportunity and likewise classified as "Critically Endangered (CR)."

9 PROJECT BACKGROUND

This softshell turtle was described as new based on recent genetic and morphological analyses. The 23-centimeter-long carapace shows a striking pattern with large spots. This morphological particularity, among others, led to the revelation that they belong to a hitherto undescribed species. For a long time, the so-called "Chinese Softshell Turtles" were thought to constitute a single, widespread species that occurs from Eastern Siberia to Vietnam. However, there exist cryptic taxa under the name Pelodiscus sinensis. The newly described species is already the fifth recently discovered species in this genus. And this has consequences: While Chinese Softshell Turtles were considered widespread and not threatened each newly discovered species "reduces" the individual populations. When splitting the previously combined species into the actually existing species, the size of each species' range as well as the number of individuals decreases. The newly described Spotted Softshell Turtle was considered part of the Lesser Chinese Softshell Turtle Pelodiscus parviformis, described only in 2011. P. parviformis was already considered threatened. The newly discovered species is endangered by hunting (softshell turtles are a common and prized food in East Asia), habitat conversion and competition with introduced softshells which may compete with the Spotted Softshell Turtle and potentially displace it.

Thus our study aimed at investigating whether natural populations of the Spotted Softshell Turtle, which is acutely threatened with extinction, still exist. Besides checking potential freshwater habitats also by help of interviewing local fishermen, we also plan to investigate farms and local trade to find potential members of the new species with the characteristically blotched belly (plastron). To unambiguously uncover potential individuals to represent the newly described species and not being another species or hybrid with other (introduced) softshell turtles, genetic screening of candidate individuals were performed at the molecular laboratory of the VNMN. Individuals will be catalogued and allocated to samples taken based on individual belly blotches pattern. In case we find pure representatives of *P. variegatus*, conservation breeding program will be established both at the rescue Station of the VNMN in Phong Dien, Thua Thien Hue Province and at the Melinh Station for Biodiversity of IEBR, Vinh Phuc Province. In a last project phase it is planned to release young to the natural habitats and also provide limited number of additional surplus to European (such as EUAC) institutions to extend the conservation breeding program / buildup of assurance colony for this beautiful but threatened softshell turtle species.

10 WAS THE OVERALL PROJECT	Γ PURPOSE FULFILLED?
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Yes, fully

11 WHAT OBJECTIVES WERE MET?

We could show based on our research that natural populations of the Spotted Softshell Turtle still exist.

We found the species both in freshwater habitats and in local trade.

Genetic screening revealed some of the morphologically similar softshell turtles found in fact to represent P. variegatus.

Pure representatives of *P. variegatus* were used for the buildup of a conservation breeding program for example at the Melinh Station for Biodiversity of IEBR, Vinh Phuc Province.

A respective facility was planned and built according to European standards.

Animals do well in the conservatioj breeding facility and females already laid eggs.

WHAT OBJECTIVES WERE NOT MET?

In a last project phase it is planned to release young once hatched to the natural habitats and also provide limited number of additional surplus to Vietnamese stations and European (such as EUAC) institutions to extend the conservation breeding program / buildup of assurance colony for this beautiful but threatened softshell turtle species.

12 WHAT PROJECT ACTIVITIES WERE UNDERTAKEN?

All could be performed

13 WHAT OUTCOMES WERE ACHIEVED DURING THE COURSE OF THE PROJECT?

ARE ANY ONGOING?

In a last project phase it is planned to release young once hatched to the natural habitats and also provide limited number of additional surplus to Vietnamese stations and European (such as EUAC) institutions to extend the conservation breeding program / buildup of assurance colony for this beautiful but threatened softshell turtle species.

DID ANY EXPECTED OUTCOMES FAIL?

14 DID LOCAL PEOPLE/C	OMMUNITIES PARTICIF	PATE IN THE PROJECT?	IF SO, HOW	MANY A	ND
WILL CONTINUED CONT	ACT BE MADE?				

- 15 DID THE GOVERNMENT OF THE HOST COUNTRY RECEIVE INFORMATION ON THE PROJECT'S RESULTS?
- 16 HOW DID THE RELATIONSHIP WITH OTHER NGOS WORK? WERE THERE ANY ISSUES?
- 17 TOTAL PROJECT BUDGET AND EXPENDITURE (IN EUROS)
- **18 AMOUNT OF MATCHING FUNDS** SPENT:

19 AMOUNT SPENT FROM EUAC FUNDS:

20 EXPENDITURE BREAKDOWN (IN EUROS)

TRAVEL	1400 E	
SALARIES	700 E	
ACCOMMODATION	400 E	
EQUIPMENT	400 E	
COMMUNICATION		
MISCELLANEOUS	2000 E	
TOTAL	4900 E	

21 PUBLICATIONS PRODUCED AS A RESULT OF THE PROJECT

Ziegler, T., Nguyen, T. T., Ong, A. V., Pham, C. T. & T. Q. Nguyen (2020): In search of the Spotted Softshell Turtle in Vietnam: An implementation of the One Plan Approach. - WAZA News 2020, 1: 24-27.