



EUROPEAN UNION OF AQUARIUM CURATORS

REPORTING FORM

FOR *IN SITU* CONSERVATION PROJECTS FUNDED in 2021

1 TITLE OF PROJECT

Reintroduction of the extinct in the wild species *Skiffia francesae* to its natural habitat, the springs of the Teuchitlán River

2 NAME OF APPLICANT

Dr. Daniel Abed-Navandi

INSTITUTION

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DATE OF REPORT:

03.03.2023

PLEASE SEND YOUR REPORT TO ISABEL KOCH, SECRETARY-GENERAL OF EUAC

(ISABEL.KOCH@WILHELMA.DE)

AND COPY TO

João Falcato : jfalcato@oceanario.pt; Brian Zimmerman: bzimmerman@bzsociety.org.uk

3 LOCATION OF PROJECT (REGION & COUNTRY)

Springs of the Teuchitlán River, Jalisco, Mexico. At 20°41'22.80"N and 103°50'31.50"W

4 PROJECT START AND END DATES:

June 2021 to June 2024

5 PROJECT CO-ORDINATOR, ADDRESS AND INSTITUTIONAL AFFILIATION

(IF DIFFERENT FROM APPLICANT)

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6 PROJECT TYPE

(TICK ANY COMPONENTS THAT APPLY)

- BIOLOGICAL/ECOLOGICAL RESEARCH
- VETERINARY/CONSERVATION MEDICINE
- ANIMAL WELFARE
- CAPTIVE BREEDING
- RE-INTRODUCTION/RE-STOCKING/TRANSLOCATION
- HUMAN-WILDLIFE CONFLICT

- EDUCATION/PUBLIC AWARENESS
- TRAINING/WORKSHOPS
- COMMUNITY-BASED/SOCIAL POLICY
- ECOTOURISM/SUSTAINABLE DEVELOPMENT
- SUSTAINABLE USE
- WARDENING/LAW ENFORCEMENT
- PROTECTED AREAS MANAGEMENT
- OTHER: _____

7 FOCAL SPECIES (COMMON AND SCIENTIFIC NAME)

The Golden Skiffia, *Skiffia francesae*

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

Extinct in the wild

CITES NO

APPENDIX

9 PROJECT BACKGROUND

After 20 years of *ex-situ* conservation programs developed at the Universidad Michoacana in Mexico, and after the successful reintroduction of the extinct in the wild *Zoogoneticus tequila* to its natural habitat, we are now planning the reintroduction of *Skiffia francesae* (Extinct in the Wild). There are several advantages of a timely reintroduction of *S. francesae*, including six years of experience in the area, a complete characterization of the habitat and environmental quality, strict control of exotic species, and important educational outreach activities that help to improve the local perception of the conservation of this species and the freshwater habitat. During 2019 and 2021 we received four grants from Beauval Zoo (France), Wilhelma zoo (Germany), American Livebearer Association (USA), and Poecilia Scandinavia Association (Scandinavian countries). With these grants we built the needed facilities to maintain and reproduce large numbers of individuals of the species under semi-captive conditions. We are confident that the next step is the reintroduction process to its natural habitat. We also intend to deliver a comprehensive education outreach campaign in the area that focuses on the environment, the fish species that depend on it, and generate community support for the reintroduction of this species.

10 WAS THE OVERALL PROJECT PURPOSE FULFILLED?

Yes

11 WHAT OBJECTIVES WERE MET?

The educational program with the people from Teuchitlán has been continued on several levels including the strengthening of the Guardianes del Río initiative, the start of interpretative “Zoogy trails”, several workshops and training courses, mainly for children, focusing on nature conservation, fish recognition, creating of awareness and similar. The goal of introducing 200 specimens into the Teuchitlán springs has been topped and included after all 1.000 individuals in two charges, the reintroduction ceremony was held together with the local community as planned. The monitoring of the river situation and the species could be performed as planned.

WHAT OBJECTIVES WERE NOT MET?

none

12 WHAT PROJECT ACTIVITIES WERE UNDERTAKEN?

- 1 - Carried out experiments to obtain an effective deworming treatment for *Skiffia francesae*.
- 2 - Set up mesocosms in the river, conduct experiments of feeding habits, water quality treatments, competition, population growth, parasites, and condition factor experiment to figure out the potential adaptation of the *Skiffia francesae* to Teuchitlán area and prevent possible problems for a new reintroduction event in the springs.
- 3 - Reintroduced specimens of *Skiffia francesae* into the spring areas with the participation of the local community of Teuchitlán.
- 4 - Monitored (ongoing) water quality at the release site and studied the biology of the reintroduced species in the area and the ecology and habitat quality of the area where *Skiffia francesae* was reintroduced. Continued (ongoing) with the control and eradication of non-native species in the river and spring area.
- 5 - During the field trips we were going to do an intensive monitoring (ongoing) of the river to identify if the species is prospering to other areas of the river.
- 6 - Continued (ongoing) the environmental education program in coordination with the local community.

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

The deworming of the fish could be done successfully. Several studies in advance showed a strong coherence of reduced population development of *Skiffia francesae* under presence of *Pseudoxiphophorus bimaculatus*, so the extraction of this exotic species from the Teuchitlán springs has been increased. The reintroduction of the species could be done in bigger numbers as originally planned due to a much higher reproduction rate than previously expected. The acceptance through the local community of the reintroduction process and activities related to river sanity and education was very high and inspiring.

ARE ANY ONGOING?

The educational program as well as species and river monitoring are ongoing, the reintroduction process has been stopped to wait for further studies. The extraction of *Pseudoxiphophorus bimaculatus* is ongoing and the rate has been increased.

DID ANY EXPECTED OUTCOMES FAIL?

Though a high percentage of *Pseudoxiphophorus bimaculatus* has been extracted from the river, fin damages of male Golden Skiffia indicate that the pressure might be still too high. Ongoing studies and bacteriological tests are performed to identify the reason for these damages. Fish that were introduced from Mesocosms adapted easier to the habitat than fish that were directly released from artificial ponds under surveillance indicated by recapture experiments.

14 DID LOCAL PEOPLE/COMMUNITIES PARTICIPATE IN THE PROJECT? IF SO, HOW MANY AND WILL CONTINUED CONTACT BE MADE?

The town of Teuchitlán was already involved in the reintroduction of *Zoogoneticus tequila* and is very active in contributing and participating in the reintroduction of *Skiffia francesae*, too. This will continue. School classes from the vicinity including the metropolis of Guadalajara participated in the environmental education program, the zoo in Guadalajara could be won as partner.

15 DID THE GOVERNMENT OF THE HOST COUNTRY RECEIVE INFORMATION ON THE PROJECT'S RESULTS?

Yes, the national commission for knowledge and use of biodiversity was included right from the beginning in this project.

16 HOW DID THE RELATIONSHIP WITH OTHER NGOS WORK? WERE THERE ANY ISSUES?

Very good, part of the donation for the project came from NGO's (e.g. Shoal, re:wild).

17 TOTAL PROJECT BUDGET AND EXPENDITURE (IN EUROS)

Budget: 100.000.-, Expenditure 85.000.-

18 AMOUNT OF MATCHING FUNDS

SPENT: 10.000.-

19 AMOUNT SPENT FROM EUAC FUNDS:

10.000.-

20 EXPENDITURE BREAKDOWN (IN EUROS)

TRAVEL	3.500.-
SALARIES	
ACCOMMODATION	
EQUIPMENT	3.500.-
COMMUNICATION	3.000.-
MISCELLANEOUS	
TOTAL	10.000.-

21 PUBLICATIONS PRODUCED AS A RESULT OF THE PROJECT

Annual report (added to this report)

Several articles about this project in the press and mentions in the social media, including the Instagram account of the Hollywood actor Leonardo DiCaprio

Several scientific publications in preparation
