# The Parosphromenus Project

Annual Newsletter

2019-2020



Dear members and supporters of the Parosphromenus Project

Time flies, and it is some time ago now that you heard from us. Specially now, in these very hard and trying time for all of us, due to the Corona Virus, we wish to extend our best wishes to everyone - what happens is something beyond anyone's imagination, and even though for some of us it may mean more time at home - caring for fish - for many it is a time with extreme challenges, - please take care and be well.

In the PP indeed many things are happening. In many different directions, - it is very clear to us, that some important doors have opened, and work has begun, which takes long time to become established, but still hold really good promises for the time ahead. Here's an overview of the important progresses we have achieved in the last annual period from 2019-2020.

We hope you will enjoy reading.

Best Regards from The Parosphromenus Project Team

# Contents

# THE 3 INTERNATIONAL MEETING OF THE PAROSPHROMENUS PROJECT

6-8 of august 2019 in Chester, UK located at Chester Zoo and held with the support of the Aquarium Team, Chester Zoo.

The first 2 International Meetings has been held in Hamburg Germany, but it was decided that this time we would try to move to another place, in another country. As we are in the beginning of establishing connections with The Aquarium Department in Chester Zoo, and also frequently have people contacting us from the UK, we felt it would make sense to try to make the meeting happen in the UK. We felt we had reasons to come, and to strengthen our relations with the team in Chester, but of course we very much hoped that there would be members in the UK, who would see it as a chance to meet together and get to know each other as well.

The meeting took place on August 7, 2019, and we were kindly supported by Chester Zoo, who offered to host the meeting by providing room as well as all serving lunch, tea and coffee. For at rather small project as the Parosphromenus Project this kind of support is very valuable, as it is very difficult to organise such an event from abroad, and with very little financial capacity, - so a big thank you has to to be expressed to Chester Zoo, and in particular Andrea Swatman, the leader of the Aquarium team who did a great job organising these things for us.



From left front Martin Zuber (Switzerland), Allan Brown, (UK) Helene Schoubye (DK) Marlyse Zuber (SW), Andrea Swatman (UK), Klaus Härtel (SW), Kevin Marshall (UK), Michael Balzer from Shoal (UK). Back from left Benjamin Wilden (GE), David Armitage (UK), and Jack Irish, Harry Shields and John Smith from UK

The day was quite full, first with a presentation by Benjamin Wilden, who explained about the Parosphromenus project.



Andrea Swatman, team leader of the Aquarium Department, spoke about the conservation work of the Zoo, presenting a project which they have been involved with previously, relating to how could it be possible to become involved with the PP, not in a similar way, but perhaps with inspirations from other projects.

Chester Zoo is very positive towards engaging with the PP in some form of cooperation, - this could be in field work, if and when something opens up as an opportunity. It is difficult to precisely say in what way, - many factors needs to meet together for this to take shape, - but it remains very clear that we are being met with very positive attitude from Chester Zoo, - and is being offered support in terms of personel and financial support of some sort – when eventually reaching the point where it is possible to determine how a project could be undertaken in the field.



Another engagement which is more likely to move ahead more quickly is the making of 'husbandry guideline' for EAZA – (European Association of Zoos and Aquaria)

The intention is first of all to make a more general, not species dependent, guideline to the keeping of paros in capture, but in the long run this will be suplemented by a much more detailed spread sheet in which observations for all species can be collected, and in the future hopefully many details of any species can be found here.

It is a work which is important and needs to be done, - but we are very much aware that it is not something which will happen overnight, - this will take time and will only happen in cooperation with both breeders, keepers and locals.

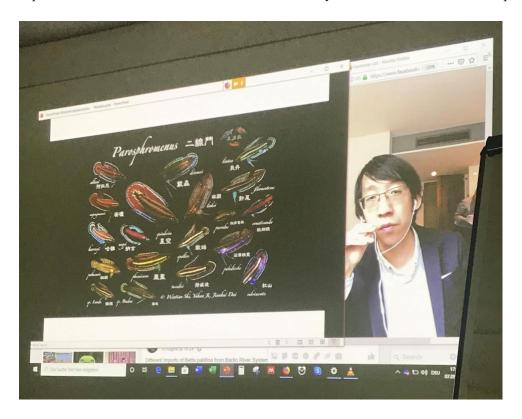
Very early on in our planning, we got into contact with Allan Brown, - who is one of the real pioneers in the field of parosphromenus as well as bettas, - and he generously offered to do a presentation for us of his earlier trips to Sarawak and Penninsular Malaysia.

Allan Brown took us in his presentation, through his and his wife Barbaras travels in Sarawak and Penninsular Malaysia. It was incredible fasinating to see how he and his wife travelled and collected on their trips, - and experience the complete dedication of going to far away places, remote areas, staying in hotels with bags of fish all over, and bringing at the time unknown and rare, new fish back to UK. We saw photos of the at the time unknown Parosphromenus species which he found, and which is now known as P. Allani (named after him), - and photos of biotopes which was beautiful and untouched, yet also how – years ago the destruction of some habitats was clearly also happening. It was a priviledge to meet Allan in person, and listen to his presentation.



Wentian Shi, - joined us for an online presentation, - a tecnical performance which we had not tried before, - but worked incredible well, - and can be used another time too.

Wentian also led us through his recent big Expedition with his Team S.J.D. in both Malaysia and Indonesia. In 2019 his Teammate Ji visited the habitats of P. allani and P. sp. Lundu in Sarawak; Dai visited the habitats of P. tweediei and P. alfredi in Peninsula Malaysia. Shi himself together with the Japanese explorer H. Kishi traveled in two weeks over 500 km in Kalimantan Tengah, Indonesia. They confirmed the distribution area of P. filamentosus in Kahayan-Kapuas-Barito River System, rediscovered the species P. sp. Ampah, confirmed that P. parvulus and P. sp. Pelantaran were highly possible extinct in Mentayap River System due to Oil-Palm plantation. He As always, Wentian, is doing some incredibly interesting observations and findings, - and we hope to be able to shorten this presentation a little and make it available on our youtube channel – as soon as possible.



On sunday most of us met again to join Andrea in a very interesting tour behind - and also a little at front - in the Aquarium Department. We saw the Parosphromenus tanks which has already been established for some time, and it inspired to many discussions about water, ph, how to do many things, - the food, of course there were many interesting 'live food' variaties to be found behind the scenes, and this is of course something which will engage a paro-interested group of poeple.



We wish to thank everyone who has taken part in this meeting, - by supporting our work, by being interested and engaged, sharing their enthusiasm. (Helene Schoubye, Copenhagen)

## New partnerships - ASAP and SHOAL

#### **SHOAL**

In 2019 we the Parosphromenus Project has become strategic partners with the new organization SHOAL - a new organization of freshwater species conservation.

The work of SHOAL is aimed at focusing on creating awareness and action in relation to freshwater species, through projects and funding. SHOAL is already involved in different areas, and you can follow their work on their homepage (https://shoalconservation.org/).

We are seeing this as a very important and interesting new cooperation and possibility in Parosphromenus Conservation Projects. We are looking forward to working together with SHOAL to increase public awareness of the threatens these species and their habitats are facing and finally to set up in-situ conservation areas for them.

You can find an article written by Michael Balzer, director of SHOAL about us: <u>Underwater Jewels</u> threathened by forest fires (https://shoalconservation.org/underwater-jewels-threatened-by-forest-fires/)

These incredibly beautiful tiny jewels live hidden away in the murky blackwaters of the peat swamp forests. They are airbreathers living in the leaf litter in the tiny dark streams and channels that cut through the peat swamp forests, meaning they can tolerate the low oxygen levels in the water.

Scientists have only recently begun to understand the "Paros" as they are nicknamed. The first species was described in 19<sup>th</sup> century but new species are still being discovered. Where they live, they are often abundant but easily overlooked. The aquarists, the fishkeeping hobbyists have not overlooked them. Liquourice gouramis are naturally very popular because of their incredible beauty and diversity. But they are generally hard to keep and often hard to see in an aquarium and so very few people keep them.



Parosphromenus alfredi, Assessed as Critically Endangered on the IUCN Red List

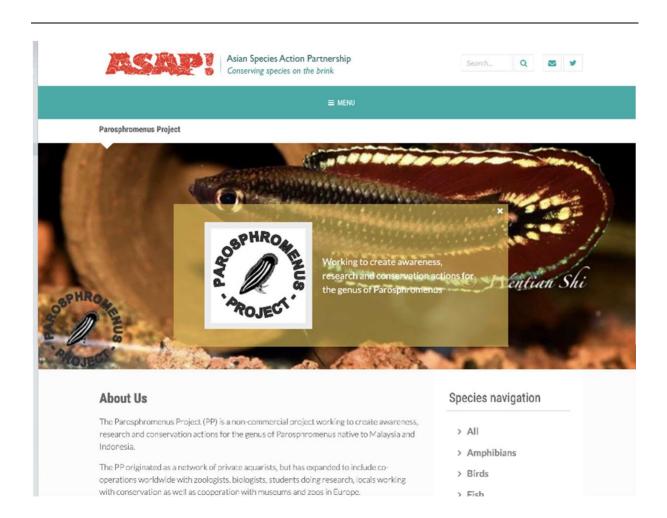
And it is the few people that do that may be part of the answer to their survival. The little known Parosphromenus Project, set up by a passionate, German aquarist called Peter Finke has been quietly working to save these species through a voluntary effort organised by aquarists. Working across the world, these enthusiasts share information, maintain breeding populations of each species and roise awareness of the plight of these fishes. They have even begun to identify the habitats and seek to gain their protection in a variety of innovative ways.



## **ASAP**

In November 2019 we became partners with <u>ASAP</u> (<u>https://www.speciesonthebrink.org/</u>) - species on the brink (Asian species Action Partnership)

You can find our special page in ASAP <a href="https://www.speciesonthebrink.org/partners/the-parosphromenus-project/">https://www.speciesonthebrink.org/partners/the-parosphromenus-project/</a>)



### **PCBA**

We have established a cooperation with PCBA (Prigen Conservation Breeding Ark) in 2020. It is Indonesia's and the world's foremost conservation breeding facility for highly threatened Indonesian animal species (<a href="https://www.prigen-conservation-breeding-ark.com/">https://www.prigen-conservation-breeding-ark.com/</a>). It has been set up and is managed by Taman Safari Indonesia Corporation, in partnership with ZGAP, at a four hectares site, that is surrounded by secondary tropical forest, and is not open to the general public. At present, it consists of six complexes with 189 aviaries for threatened Indonesian songbirds, a complex for four pairs of Javan small-toothed palm civets (Arctogalidia trivirgata trilineata), and a large, heavily planted complex for up to five breeding groups of Javan warty pigs (Sus verrucosus).

Now their manager Jochen Menner is planning to establish a new permeant facility to protect labyrinth fish species. For the set-up and operation of this new breeding facility they will work in close cooperation with us PP. We will send an expert to Indonesia to guide their works in details when the infostructure works are finished.

This project will allow us to have a permeant conservation facility in Indonesia, which can reliably carry out ex-situ conservation works for endangered Parosphromenus species. That will protect these species before the in-situ conservation areas are set-up. Although this plan has currently just begun, we are optimistic on the future of it and will keep pushing forward this plan with PCBA.



# Conservation of Parosphromenus fishes and other peat swamp specialist fishes in Malaysia.

The SHOAL is now pushing forward a project aiming at establishing permeant in-situ conservation areas for Parsophromenus species in Malaysia. The first international meeting was held in March 2020. We, Parsophromenus Project also joined. Here is the report:

(also: <a href="https://parosphromenus-project.org/en/news-info/new-projects-2019-2020/203-minitech/minitec-news-2019-2020/1209-2">https://parosphromenus-project.org/en/news-info/new-projects-2019-2020/203-minitech/minitec-news-2019-2020/1209-2</a>)



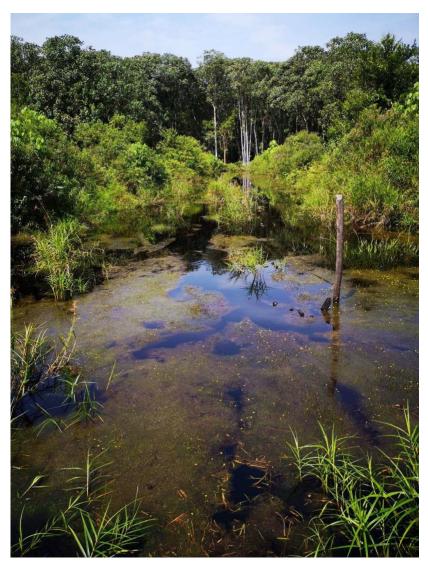
"In March 2020, a group of experts, including Wentian Shi from the Parosphromenus Project met in Kuala Lumpur, Malaysia to draw up an action plan for endangered Peat Swamp fishes in Malaysia. The meeting was hosted by Monash University Malaysia and Global Environment Centre, facilitated by Mike Baltzer from Shoal <a href="www.shoalconservation.org">www.shoalconservation.org</a>.

The meeting was designed to support the ambitions of the Parosphromenus Project and will contribute to the plan of the IUCN Asian Species Action Programme to prepare an action plan for all critically Endangered freshwater fish species in Malaysia. The high number of threatened fish species found in the diminishing peat swamp forests in SE Asia is of the highest concern.

During the meeting, the team discussed which species should be included, the habitats these species rely on and the actions required to save them from extinction. A plan has been drafted and will be worked on further as more information is obtained. The next step is to design and fund the most urgent projects. The three most urgent projects are all targeted at sites where Parospromenus species are found in Peninsula Malaysia.

The team also noted that more information is required on the status and distribution of peat swamp and threatened species in Sabah and Sarawak (Malaysian Borneo).

For further information, please contact Mike Baltzer at Shoal mike@shoal.org.uk"



The North Selangor Peat Swamp Forest is also the home of P. harveyi (IUCN: EN)

The NGO, Globle Environment Centre, (<a href="https://www.gec.org.my/index.cfm?&menuid=146">https://www.gec.org.my/index.cfm?&menuid=146</a>) is trying to protect this area from oil-palm plantation

# New project: P. alfredi and P. tweediei (PP - Chester Zoo – IUCN)

In november 2019 The PP was approached by Andrea Swatman, head of the Aquarium Team at Chester Zoo. She had been tasked with an ex-situ conservation project of maintaining "insurance populations" of IUCN and the EAZA (European Association of Zoos and Aquaria) Regional Collection Plans.

The task is to maintain 'insurance populations' of the REDLIST Critically Endangered species of *P. alfredi* and *P. tweediei*. This is a difficult task for Chester Zoo to do on their own and because keeping 'insurance populations' is very close to what we have preciously done with our 'old' GODFATHER program, it was logical for us to offer to engage in this work.

The Parosphromenus Project therefore is now engaged in keeping, maintaining, breeding and reporting these two species. P. tweediei is only present at very few holders in Europe, but cooperation has been established, and will report this - in Census, and to Chester Zoo.



P. tweediei

The difficult part is P. alfredi. Their last known habitat in Sedili has been destroyed in 2017. No wild population can be found ever since then. Emergent Survey of potential remaining distribution of P. alfredi in Johor Malaysia must be carried out before too late. We, PP, are now trying our best to rediscover the wild population of this species.



P. alfredi

It is our intention to develop this structure in the future to include other species, and other keepers. We are quite aware that not all really critically endangered species are listed as such on the REDLIST, so this will not stop us from trying to create a structure within the PP - using in particular Census - to observe and create 'insurance populations' for other species.

The species we are particularly concerned about right now are P. deissneri, P. rubrimontis.

'Insurance population' = IUCN has determined that to prevent extinction for one particular species, it has become more important to make sure that this species is not kept in too small numbers with few people. Therefore, they wish to make certain that the species is kept by a minimum of 3 people, with a stock of a minimum of 50. Such a stock is called an 'insurance population'.

IUCN works together with EAZA (European Association of Zoos) of which Chester Zoo is a member.

## News of endangered species

## P. alfredi

The situation of P. alfredi has been in the focus for some time. Although there still exist some very old captive strains of this species in EU, no new wild population could be recorded, since the last known habitat, Sedili, of this species has been confirmed to be indeed completely destroyed in 2017. The possibility of it being extinct in wild has been considered to be extremely high. Dai from S.J.D. Team reported again in March 2019: in this tradition distribution area no P. alfredi can be found.

But investigations and research are ongoing, - and based on the findings of Wentian Shi, there might still be hope for remaining habitats of P. alfredi in another area. In Oct. 2019, Shi has obtained by chance a group of so-called "P. tweediei" from an ornamental fish importer in China. These specimens were exported from Kota Tinggi, Johor, Malaysia under the name P. tweediei. But taxonomic features suggest they are actually P. alfredi. This finding indicates for the first time since 2017, that there still exists potential habitats and wild population of this extremely endangered species.

PP will try to carry out an emergent survey of potential remaining natural distribution of P. alfredi in Johor Malaysia



### P. deissneri

Again we have to stress, that the situation of *P. deissneri* is catastrophic. This species from the indonesian island of Bangka face a very difficult future indeed.

In october 2019 Wentian Shi again visited this area, and the report from here is devastating. 4 of the newly in 2017 discovered habitats were by 2019 completely destroyed. The other two are half broken. The exact habitat where this species was rediscovered by Shi, was now lost due to oil-palm plantation in just 2 years. You can read this report here: <a href="https://parosphromenus-project.org/en/gallery-p-deissneri/update-on-the-p-deissneri-habitat-bangka-oct-2019">https://parosphromenus-project.org/en/gallery-p-deissneri/update-on-the-p-deissneri-habitat-bangka-oct-2019</a>

The Parosphromenus Project, is right now, with the help of Chester Zoo, in particular Andrea Swatman, head of the Aquarium Team, in dialogue with IUCN, in order to change the status of *P. deissneri* on the IUCN red list from *endagered* to *critically endagered*.



# Census of captive strains 2019 Autumn Parosphromenus-Project

Pictograms used to assess the short-term trend:

+++: positive changes compared to past census

--> : stable population and number of keepers

--- : negative developments, decreasing numbers of keepers and population

@ : kept at institution/zoo

: special situation/development

#### P. alfredi -->!

The few keepers of "Sedili" have kept its stock constant and even slightly growing. Due to re-evaluation of fish kept by Schoubye and originally named "P. tweediei (Ruinemans 2013)", several specialists have come to the conclusion that these might be more likely to belong to "alfredi". Thus, the new subgroup "cf. alfredi (2015)" was established.

#### P. allani ---

The number of keepers reporting has **decreased** and so has the total number of fish reported. Thankfully, Bussler manages to breed the two forms. **Efforts should be put on distribution** and establishing a **larger** and consistent breeder network.

#### P. anjunganensis +++

The keepers as well as the numbers of fishes reported have **risen substantially**. Many new keepers reported their stock.

#### P. bintan -->

Despite a small decline, the numbers are still **comparatively large**. It is especially beneficial that **many keepers report their fish constantly**.

#### P. deissneri -->

Only two but **very successful keepers who even manage to breed** the small stock are promising. Hopefully, more keepers can be found and supplied with the offspring in the future.

#### P. filamentosus +++ @

**Increasing numbers are promising.** Beu has a **large stock** and might be able to supply other keepers in the future. **New wild-caught form** "Siong" reported by Zuber.

#### P. gunawani +++!

Reported by **one keeper** again (after no report last year). **Identification unclear**. Hopefully, this can be verified in the future and is they are "qunawani", breeding efforts would be desirable.

#### P. harveyi ---!

**Decreased numbers are alarming.** Potentially endangered stock. It might be that some keepers still have a few fish but did not participate.

#### P. linkei --> @

Numbers across the main variations are **stable and even rising**. Participation of **Swatman from Chester Zoo** means a large step for the project. In the future, **more institutions should be included** also for other species.

#### P. nagyi -->

Overall stable and with several keepers successful in breeding. "Sedili" was not reported anymore.

#### P. opallios +++ @

**Reported again after disappearance** by Swatman from Chester Zoo. **Small population size** might be problematic but breeding efforts could stabilize this seed stock to become spread more widely.

#### P. ornaticauda ---

**Fewer keepers and individuals**. Breeding appears to be stabilizing the stock. Offspring distribution to new keepers should be a focus.

#### P. pahuensis +++

The number of keepers has **risen** as well as the total stock reported. Efforts should be focused on **stabilizing those three populations**.

#### P. paludicola --- @

A **decline in keepers was countered** by the newly reported fish at Chester Zoo. Their population appears stable and will hopefully increase in the future.

#### P. parvulus ---

The total number of keepers reporting their fish as well as the number of individuals has **decreased**. This is mainly an effect of Bussler having reduced his total number of fish. However, the **total population appears reasonably sized**. Potential future breeding efforts would be beneficial. New form "Siong" introduced by Zuber.

#### P. phoenicurus +++ @

The **long-term efforts** after the 2014 import by Dietzenbach appear to be **successful**. After a recent decline, the **number of keepers and individual fish is rising**, and offspring was reported. With a small group at Chester Zoo, the population appears generally stable. New form reported by Hallmann ("Sungai Pagar").

#### P. quindecim -->

The species is still **only reported by few keepers**. However, they are **successful in breeding**. This seems to be a species where future distribution effort should be strengthened.

#### P. rubrimontis ---

**Only one report shows how severe the situation** has become here. Hopefully, the only pair left will breed and increase the population in the future.

#### P. sumatranus -->

Number of **keepers is approximately constant**. **Declining numbers** when compared to last spring are due to the reduction of previously large populations. **Offspring is present** thankfully.

#### P. tweediei ---!

The number of varieties, keepers and individuals has **dramatically decreased**. The re-classification of the fish reported by Schoubye is only part of the reason for this. The future of this **population appears unsecure.** 

## HUSBANDRY GUIDELINE – PROJECT

The Parosphromenus Project is helping Chester Zoo create Husbandry Guidelines for BIAZA (British and Irish Assosiation of Zoos and Aquariums) and EAZA (European Association of Zoos and Aquaria)

In order for different Zoos in Europe to be able to maintain and keep populations of Paros, it is essential that guidelines for best Husbandry Practise is created.

This is not just describtions of experiences, or guidelines, this is at best a <u>collection of precise data</u> <u>and information</u>, gathered over a period.

Andrea Swatman is the responsible person at Chester Zoo initiating this, and the work began already in September 2019, at the International Meeting in Chester.

As a beginning, - a lot of written material has been given on from the Parosphromenus Project, - describtions of our known experience, as well as data connected with habitats - water conditions, levels of ph, and other things. Not habitat data in terms of distribution is nessesary.

But mainly we have provided basic experience and knowledge about keeping paros in tanks, - food, breeding behaviour, fry development etc.

Also, a spreadsheet is being developed, - containing all important documentation and information about all species.

To gather all this information is a continuing proces, and we invite everyone to take part in it by offering their knowledge and specific experience.

If you have any information which you would like Chester Zoo to incorporate in this Husbandry Guideline, please write to husbandry@parosphromenus-project.org (IN ENGLISH, PLEASE)

Your email will then be viewed by the PP and Chester Zoo, and any contribution will be accredited.

#### Captive management

- Enclosure
- substrate
- furnishing and maintenance
- environment (water quality and water chemistry)
- environmental enrichment
- lighting
- life support

#### Behaviour

activity

- social behaviour/social structure
- life support systems

#### **Breeding**

- reproduction
- egg laying and development times
- development and care of young
- clutch sizes

### Diet and feeding behaviour

- Basic diet
- fry
- large juveniles to adults
- special dietary requirements
- method of feeding or preparation of food items

## Specific problem

Recommended research for in-situ (captive populations) - Chester Zoo has access to MSc and PhD students, - are there any questions we want answering?

# WHO WE ARE:)

We are many, - but we are also not so many:). We have many many people who are members, and supporters, and who do a lot of good work keeping, reporting and spreading knowledge about Paros.

But we are also, a small group of dedicated people doing a number of things, from public relations, census administration, translations, travels, breeding and coordinating. Our names may appear now and again here and there, and we thought we would now present a little about who we are. You can see this on the homepage

Copyright © \*2018 \*|The Parosphromenus Project, All rights reserved.

Our mailing address is: admin@parosphromenus-project.org