

WELCOME TO OUR



Cairns Qld

ANGFA

Australia New Guinea Fishes Association

NATIONAL CONVENTION 2024

PHOTO: Gunther Schmida



Alau Beach swamp, Umagico, Cape York Qld. Photo: Josh Lawler

Cover Photograph



Snakehead Gudgeon *Giurus aporocephalus* by Gunther Schmida

Once thought to be widely distributed in the Indo-Pacific region from Madagascar to New Guinea and the other islands of Melanesia, after a couple of changes to the genus name and changes to the species name, the group was taxonomically revised in 2020 and split into eight species. The Australian species occurs between Cape Tribulation and the Burdekin River in north-eastern Queensland, it is also found in Papua New Guinea and the Solomon Islands.

The Snakehead Gudgeon is found in a variety of habitats including rivers, swamps, coastal streams and floodplains, and often found amongst dense aquatic vegetation or the cover of undercut banks. The female will lay 100,000–220,000 eggs on a firm surface and are guarded by the male until they hatch. It could have a marine larval stage but the adults are always found in freshwater. Grows to at least 23 cm.



ANGFA Northern Australia organisers statement



WELCOME TO CONVENTION

Welcome one and all to Cairns North Queensland for the 2024 ANGFA National Convention, proudly hosted by ANGFA Northern Australia. We hope those visiting the area for the first time, spend some of that time enjoying what North Queensland has to offer. This is only the second time that a North Queensland Convention has been held. The last being held in Townsville at the Mecure Inn back in the early 90's. That was nearly 30 years ago.

The previous convention to Cairns, was in Brisbane back in 2022. This was planned during the Covid-19 outbreak. But being able to see the end of the Covid-19 tunnel in sight, and still under the threat of further lockdowns, it all fell into place perfectly. You would be amazed at how much planning and work is put into these conventions, and doing this while looming Covid lockdowns, new regulations on travel and meetings were still being set. A big thank-you to all on the previous Convention Committee on an amazing job. Now it is 2024, and a new Convention, with a new first time location. Cairns is in the middle of ANGFA Northern Australia's membership. We have regional groups in Townsville, Cairns, and Darwin, with small cells in places like Weipa, who informally get together. Having the convention up this way is an opportunity to showcase our beautiful fishes, plants and all the other wonderful aquatic things Australia and New Guinea have to offer as you will hear over the next couple of days. At this particular Convention we are lucky to have a variety of local and international

presenters who are providing us with a focus on Northern Australia, as well as New Guinea, both areas that are hot spots for our native fish.

Finally, vale to Tony Tucceri, ANGFA Life Member. Tony was a formidable force as treasurer of both ANGFA National and ANGFA Victoria for over 10 years. Extremely hard working, a persistent and very persuasive communicator, Tony got a lot done during his time with ANGFA, including such activities such as persuading the local Narre Warren Council of the need to provide an important sanctuary for the endangered Galaxiella pusilla population in Victoria. Tony was a key organiser and planner of Conventions from 2003 to 2013, spearheading teams for local Conventions, and offering his organisational services to Conventions outside of Melbourne.

INTRODUCTION TO ANGFA

The Australia New Guinea Fishes Association was started in October 1983, over 40 years ago. Since that time, ANGFA has brought together people with common interests in understanding more about the freshwater fishes and aquatic habitats of Australia and New Guinea - the ancient continent of Sahul. ANGFA's objectives are to promote the study, conservation and culture of the native freshwater fish species of Australia and New Guinea, and to provide a forum for the exchange of information. ANGFA members include people from diverse backgrounds and experiences, people with a curiosity about what's in their local creek or lake, aquarists with a

keen interest to maintain and culture fish, government agencies, non government organisations, volunteer conservation groups, through to university scientists. All share a common love of our native fish and the aquatic ecosystems that maintain them.

CONVENTION ORGANISERS

The ANGFA National Convention 2024 has been brought to you by the Convention Planning Committee, hosted by ANGFA Northern Australia with the assistance of ANGFA National. The Convention Planning Committee consists of (alphabetically) George Brand, Graeme Finsen, Steve Hume, Josh Lawler, Greg Martin, Leo O'Reilly, Heidy Rubin, David Shoesmith, Lennert Van Tright, Peter Unmack, Dave Wilson, and Shane Wilson. Thanks to Leo O'Reilly and Peter Unmack for Field Trip planning and organising. Special thanks needs to given to Greg Wallis, Greg Martin and the ANGFA Publications Committee for the production of this year's convention eBooklet.

The support of all ANGFA clubs and their committees, our sponsors, and all attending delegates deserves special mention, and is what makes a great ANGFA Convention.

Thank you also to Tyronne Callaghan, Chatlada Zamora and Jenny Lai of Novotel Cairns Oasis Resort for their assistance and organisation of Convention 2024.

The members of ANGFA NAU hope this is something we can do again in the future. And we look forward in the future to hosting again somewhere in Northern Australia.



Track to Roma Flats, Cape York Qld. Photo: Josh Lawler

CONVENTION SPONSORS





Program

Saturday 21st September 2024

8.30am	Registration
9.30am	Opening by ANGFA NAU President
9.45am	Hans-Georg Evers
10.30am	Morning Tea
11.00am	Keith Martin
11.45am	Pre-lunch drinks then Lunch
12.00pm	Lunch
1.00pm	Michael Hammer / Micah Borok
1.45pm	Josh Lawler
2.30pm	Afternoon Tea
3.30pm	Johannes Graf
4.15pm	Glynn Aland
5.00pm	Pre-dinner drinks
6.00pm	Dinner

Sunday 22nd September 2024

8.30am	Registration
9.00am	Wim Heemskirk
9.45am	Nicole Smith
10.30am	Morning Tea
11.00am	Lyle Squire
11.45am	Pre-lunch drinks
12.00pm	Lunch
1.00pm	Marten-Luter Salossa
1.45pm	Nathan Waltham
2.30pm	Afternoon Tea
3.30pm	Brendan Ebner
4.15pm	Closing by ANGFA NAU President
5.00pm	Clean up

Two trips to gain an insight into the fishes around Cairns

Field trip to the Atherton Tablelands.

Monday 23rd September

We will head inland to the Atherton Tablelands where we'll get to see a range of rainbowfish species and purple spotted gudgeon types. Options as to the specific places we visit are up for consideration, but the general plan is to examine some of the nicer Eastern Rainbowfish populations, along with Lake Eacham Rainbowfish, Malanda Rainbowfish, Tully Rainbowfish. There might be stops to pick up some local peanuts, see a platypus, Tandanus catfish and maybe a tree kangaroo. Lots of waterfalls in the area, plus Lake Eacham itself. Some sites are potentially suitable for snorkeling, but the water will be cool.

Southern Field Trip

Tuesday 24th September

We will be fishing a number of locations to the south of Cairns, including Eubenangee Swamp (*Melanotaenia maccullochi*, *M. splendida*, *Pseudomugil gertrudae*, *P. signifer*), Etty Bay (*M. maccullochi*, *M. Cairnsichthys*, *P. gertrudae*) and Utchee Creek (*M. utcheensis*, *M. mogurnda*). There are other species such as gudgeons (*Oxyeleotris nullipora* and *O. aruensis*) and glassfish that may be caught. Time permitting, there may be additional stops such as the South Johnstone River. This program may change on the day as the result of weather or other unforeseen factors. Departure point will be the NOVOTEL Cairns Oasis Resort at 8.00am



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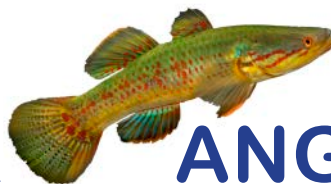
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37 Yarra St
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President
Vice President
Secretary
Treasurer

Peter Unmack
Leo O'Reilly
David Shoesmith
Graeme Finsen

president@angfa.org.au
vp@angfa.org.au
secretary@angfa.org.au
treasurer@angfa.org.au

QLD
ACT
VIC
NT

David Roberts
Michael Jones
Greg Martin
Dave Wilson

NSW Peter Matheson
(Facebook coordinator)
WA Graham Thompson
NAU Steve Hume

PATRONS

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Fishes of Sahul is produced by the Publications Committee

Greg Martin layout/design
Glenn Briggs committee chair
Peter Unmack article & review coordinator

John Lenagan Matthew Stanton
Leo O'Reilly Derek Tustin
David Shoesmith Greg Wallis

Contact the committee via: publications@angfa.org.au

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www.angfavvic.org



ANGFA NORTH AMERICA

Coordinator Ken Boorman
Chatham
Ontario N7L 5S3 Canada
lisas@lairbookstore.kent.net

ANGFA NSW Inc.

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New record of the Swamp Blue-eye in Australia

On one hot and humid afternoon in early April 2024, very much still in the wet season, the decision was made to go on an adventure to search a patch of old rainforest nestled behind the mangroves along the southern side of the Mission River; these remnant “New Guinea rainforests” represent isolated habitat patches with potential to harbour remnant species from the time of the Sahul landmass and later land bridges. Searches were further targeted to particular water chemistry from the experiences of Wim Heekskirk in New Guinea, after observing that some species of *Pseudomugil* have an affinity for alkaline water. Several kilometres were traveled by foot along the mangrove margin at low tide in search of springs, testing the water for pH and salinity at each new small stream encountered. A number of clear fresh flowing streams tested fairly fresh and with a somewhat neutral pH, for the most part these were unremarkable being full of marine crabs and Snub-nose Gobies *Pseudogobius aquilonius*.

One stream encountered however, tested slightly more alkaline than the others with a pH of 8.4. By this stage it was

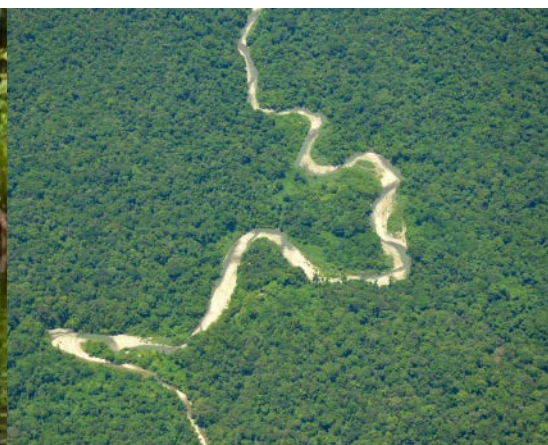
raining heavily and following the stream progressed into thick, barely penetrable mangrove forest. Approaching the source of the spring in flowing, tanning stained alkaline freshwater between the mangrove roots and pneumatophores, a few fish were observed in the gloom swimming on the surface of the water. They were rather elusive, but two were successfully scooped and viewed in hand, to reveal an unusual fish not previously encountered in recent surveys! The small transparent fish looked so out of place, the dorsal fins were way back near the tail, the anal fin and pelvic fins were bright yellow, and the second dorsal fins were tipped orange. A blue sheen extended along the back. The eyes in the dim light were dramatically blue. This had to be the Swamp Blue-eye, well out of its known range. It's an amazing feeling to find something so amazing!

Josh Lawler is a young police officer based in Weipa on Cape York, Qld. In his spare time he gets out into the bush at every opportunity looking for gobies, Blue-eyes and any other fish of interest in this fascinating and under-studied part of the country.



Hans-Georg Evers

Rainbowfishes from New Guinea - always coming back



Hans-Georg Evers (53) lives in Hamburg, Germany and is, since his very early days, an aquarist by heart. His main interests are catfish, mainly the Corydoradinae and Loricariidae, followed by rainbowfish, characins and all other interesting freshwater fishes and shrimps. He is a busy traveller, speaks several languages and has visited many tropical countries worldwide, mainly South America and Asia but also including 15 trips to New Guinea. On

his journeys he has discovered many new and scientifically undescribed fish species. In recent years, mainly rainbowfish.

Hans-Georg Evers has published 14 books, hundreds of articles and has co-authored several scientific papers. The Sulawesi Ricefish *Oryzias eversi* and the South American catfish *Corydoras eversi* are named after him. From 2005 until 2018 he was the chief editor of the international aquarium magazine

AMAZONAS and still works as an editor-in-large for the American version. In his presentation Hans-Georg Evers will show the highlights of his New Guinea trips that brought many new species into the hobby. It is a kind of roundtrip to several locations in West Papua, Indonesia including the remote Mamberamo river, the species rich Timika region as well as the Ayamaru Plateau on the Bird's Head Peninsula "Boesemani-Land".

The Queensland Wet Tropics - Rainbowfish Capital of Australia



Keith Martin is a retired Environmental Scientist who has lived in Cairns for nearly 30 years and has a lifelong interest in all aspects of natural history. Over his career, he worked as a wildlife research officer with the Northern Territory Government before setting up a private biological consulting company in Darwin. He then joined a major consulting firm, conducting or managing environmental projects across northern Australia and Indonesia, eventually working solely on International development projects.

He is particularly interested in the distribution, forms and habitats of the rainbowfishes of north Queensland. A collaboration with the Northern Territory Museum and University of Canberra (where he is a volunteer researcher) in recent years has contributed to a better understanding of the taxonomy and distribution of rainbowfish forms, leading to an increased wider interest in rainbowfish research and conservation. Keith is the author or co-author of numerous papers, articles and consultancy reports on the ecology of northern Australian and Indonesia.



The Queensland Wet Tropics is an area of north-eastern Queensland long known as a biodiversity hotspot. The Wet Tropics Freshwater Biogeographical Province includes twelve east coastal drainage basins from Cape Melville in the north to near Townsville in the south. Within this area, there are sand plains and rainforest ranges in the north, large rivers and lowland wetlands in the south, and an elevated plateau, the Atherton Tablelands, featuring the only high elevation aquatic habitats in tropical Australia.

Over the last 15 years or so, Keith and his partner Susan Barclay have spent their spare time systematically searching this region for rainbowfishes. Live rainbowfish collections were made at most sampling sites, and local environmental conditions were documented. The specimens were returned to Cairns, where they were live photographed, and then forwarded to the Northern Territory Museum for further taxonomic research.

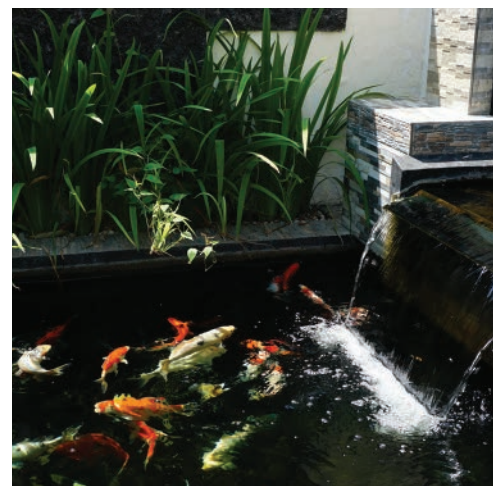
This presentation will summarise the main findings of these surveys, including distribution and abundance for each form recorded, their relative presence across regions and drainage basins, and a comparison of the Wet Tropics rainbowfish diversity with other areas. The presentation will showcase aquarium and in-situ photos of some of the most interesting rainbowfishes of the region and the environments where they live.

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Each member club has three delegates which along with any other interested parties come to QFAS meetings. These discussions are held at the Bar Jai Hall, Alexandra Road, Clayfield every few months. Here we discuss items of aquarium interest including government legislation, fish judging, QFAS auction rules and other guidelines.



Queensland Aquarium Hobbyists



Michael Hammer/Micah Borok

Team Takam: two-way learning in science and culture on fishes of the upper Fly River, PNG



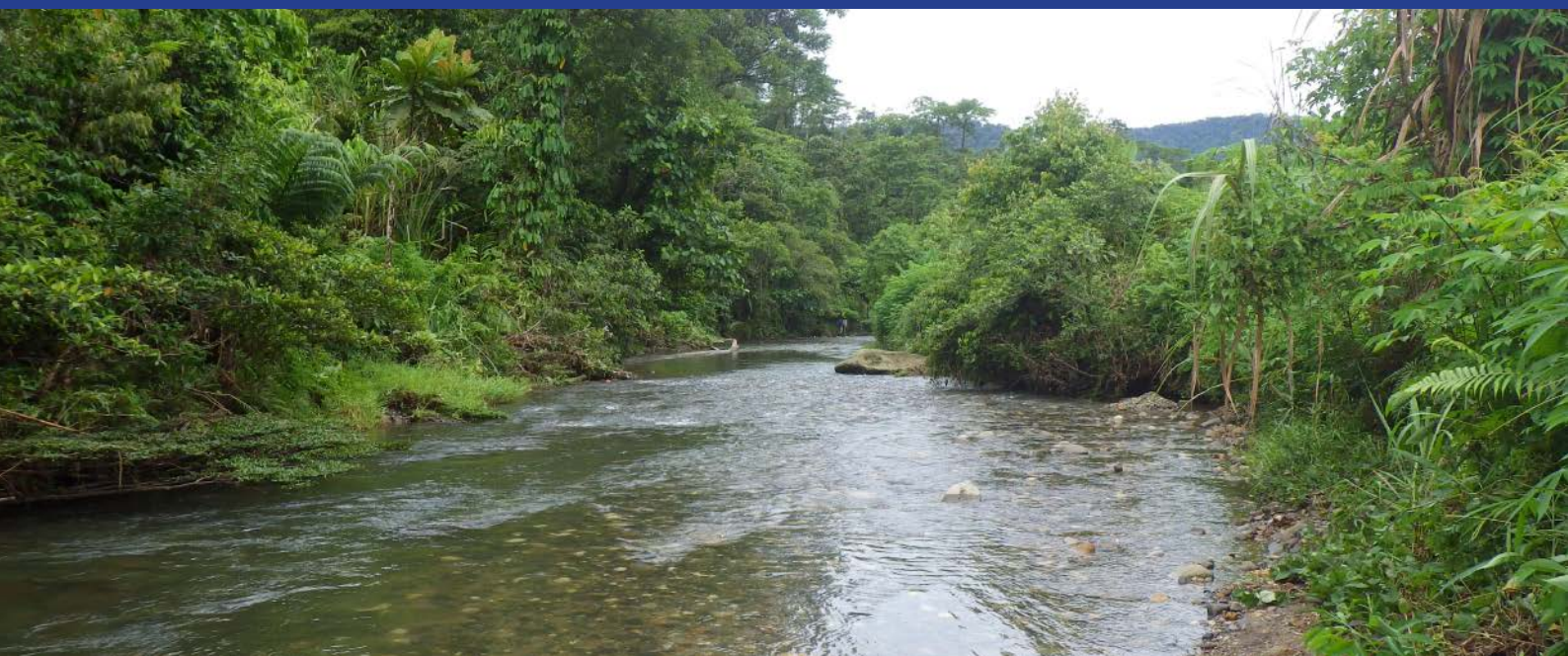
The landmasses of Australian and New Guinea, while isolated today, where at times connected in the past under lower sea levels. The regions are intrinsically linked and collectively share a freshwater fish fauna that displays high endemism and unique forms, and that differs markedly to the Asian fauna west of the Lydekker Line for example. There is still much to be discovered regarding the full diversity, relationships and ecology of this component of aquatic biodiversity, with species new to science still regularly being documented. Fishes also form a critical part of culture for traditional custodians, being intertwined in livelihood, language and deeper connections and beliefs surrounding land and water. Traditional culture and western science can form complementary learning tools to improve understanding surrounding

the environmental requirements of fishes within natural resource management, especially in the face of increasing levels of development across the region. This presentation will discuss a long-term partnership sparked between Tabubil and Darwin to build capacity in studying the takam (fishes) of the Ok Birak (Upper Fly River), and will highlight a range of interesting species from the perspective of traditional knowledge and latest scientific results.

Micah Borok is a proud PNG man, with strong Faiwol Wopkai traditional customs, language and lifestyle who is most respected by community chiefs and local church pastors and elders. He strives to be a leader in his community and demonstrate a positive influence within his village and beyond. His environmental stewardship has extended

to build a scientific understanding of the local environment including takam (fishes) to consider in a diverse mindset that underpins the community way of life. Strong two-way learning will thus help to document the importance and guidance of local species from various perspectives.

Dr Michael Hammer is a Curator of Fishes at the Museum and Art Gallery of the Northern Territory in Darwin. His role involves field biodiversity and species discovery surveys across spectacular parts of northern Australia and New Guinea, with follow up taxonomy, reporting and advice to improve conservation and management outcomes. This work is achieved through a collaborative base with partner research agencies, government and community stakeholders.



Peter Unmack

Everything you wanted to know about carp gudgeons but were too scared to ask. Plus some stuff about unisexual hemiclinal lifestyles...

Peter's fascination with fishes began with the purchase of his first fish tank when he was 7 years old. He soon obtained additional aquariums until he filled the two sheds in his parents backyard with fish tanks. Since 1985, Peter has kept a large range of Australian native freshwater fishes, most of which he collected from various travels. Peter has collected fishes extensively throughout much of mainland Australia as well as other parts of the world including Papua New Guinea, North America and southern South America. Peter was fortunate to be able to turn his fish hobby into an academic career. His

interests include just about anything to do with freshwater fishes, but especially fish biogeography, conservation and desert springs. He changed hemispheres in 1994: moved to California, then onto Arizona State University to complete his doctoral degree on the biogeography of Australian freshwater fishes. He went on to do research at Brigham Young University in Utah on the biogeography of southern South America and western North America fishes, followed by another project at the National Evolutionary Synthesis Centre in North Carolina working on developing GIS models to predict biogeographic patterns

in freshwater organisms. Peter moved back to his homeland Australia in 2013 and worked at the University of Canberra until 2021 working on fish conservation projects, which include rainbowfish conservation, trying to decipher hemi-clonal unisexual carp gudgeons and examining biogeographic patterns in Australian fishes. Peter now runs his consultancy business Unmack AquaEvolutionary continuing his fishy research.

His web pages are at <http://www.peter.unmack.net/>



Johnannes Graf

15 years of collecting rainbowfishes in New Guinea



Since 2008 Johannes has been on seven collecting trips to New Guinea, looking for rainbowfishes, with many adventures and heaps of new rainbowfishes species found. It started with the collection of known species, like *Melanotaenia praecox* and *Glossolepis dorityi*, went on to finding species known from dead samples or expedition pictures, including *Chilatherina alleni*, *Melanotaenia mairasi* and *Melanotaenia vanheurni* and

eventually finding new species including *Melanotaenia jakora* and *M. spec. Kali Tawa*. Every species has a story to tell about the way to find it, to collect it and to bring it home alive.

Johannes Graf has been an aquarist since childhood, keeping and breeding everything with fins, from Discus to catching his own mexican native livebearers to dwarf cichlids. Since the 1990s he is deeply involved in the world of

rainbowfishes, being an active member of the International Rainbowfish Association (IRG). Johannes' first trip to Papua fuelled a fire and he has been back on a total of seven trips so far... to be continued.

Against all obstacles, Johannes' team, with various members including Dan Dority, Gary Lange, Wim Heemskerk, Christophe Mailliet, Henni Ohee and Marten Luter Salossa, fights its way to the remotest places in West Papua to find new rainbowfishes.





Glynn has been interested in aquatic life for as long as he can remember – looking under intertidal rocks as a toddler on Thursday Island, trying to convert Cairns estuarine fish and crabs to freshwater as a primary school kid and catching fish, yabbies and shrimp from streams on the Atherton Tablelands. Growing up near Kuranda ensured a lot of freedom to explore natural areas and evolved into a career path starting with the completion of an applied science degree and working in governmental roles primarily around surveying aquatic biota (Territory Wildlife Park, QLD Department of Primary Industries and Arthur Rylah Institute in

Victoria), then on to compliance roles (Boating and Fisheries Patrol and Local Government Animal Management). He currently works for Seqwater as a compliance officer and has a nice mix of boating, public safety and natural area management in his work mix. Even better he gets that bit of time off to keep exploring.

Having family and good friends across Northern Australia, and having lived in Northern Australia has led to what most of us would consider a fairly extensive background and opportunities to survey many areas. It wasn't until he presented at one of the ANGFA Conferences (Canberra 1997) that he

started to realise that there weren't many photographs available of the unique fish and crustaceans he was finding and a start to either passing on photograph specimens to the Queensland Museum and Gunther Schmida, and a start of photographing fish and crustaceans with his own camera gear.

He will be giving an overview of the freshwater crustaceans of Northern Australia inclusive of the Wet Tropics, Torres Straits and Northern Territory, all areas he has had a chance to visit and take photos or pass on specimens which should enlighten you to the complexity and range of species occurring below the Papuan landmass.



Nicole Smith

A history of growing true aquatic plants aquatically in north Qld



Nicole Smith's journey as "The Weed Lady" began in 1996 when she met Wayne, who transformed his father's hobby into a business venture. Plucking her first weed in Townsville in the late 90s sparked her passion for aquatic plants. Determined to go out on their own, Nicole and Wayne looked for a sunny, water-rich property, ultimately settling in the bushlands of Mareeba in Far North Queensland to grow their business.

The early days of the business life was challenging; Nicole, at just 25, found herself digging ponds and adapting to a rugged, isolated lifestyle. Safety was a concern, and they slept with a gun on the table. Despite financial hardships and the complexities of nurturing aquatic plants in a changing environment whilst always endeavouring to protect the ecosystem, and despite not drawing any income for the first 6 months, they persevered.

In 2001 they had with 10 plastic-lined ponds and Nicole was balancing farm work with her roles as a bouncer and

household manager. Wayne handled picking, the bookwork and the client relations. Expanding in 2006 with plastic sheet sourced from a nearby mine, they built another 20 ponds and diversified into lilies and Sword plants, steadily growing their expertise. Having the extra ponds enabled them to have a six week grow out period whilst keeping up with their weekly orders.

In 2007 Nicole was suddenly forced to embrace all the responsibilities of running the farm including donning a wetsuit to pick plants in the cold waters of Winter, managing the finances, and engaging with customers. Luckily, she had listened to her late husband! Nicole also had to learn how to manage seasonal temperature fluctuations in the ponds, when to cut the plants for market, when to propagate and how to mitigate risk on the farm in a world of increasingly uncertain weather patterns.



Today, True Blue Aquatics supplies clients right across Australia with over 50 varieties of transportable, high-value plants. It is a very physical job and there are challenges: the climate is changing and there are always logistical hurdles like dealing with couriers and freight delays. On a daily base Nicole has to deal with resident snakes, turtles, frogs, and also has to deal with the ever-present issue of snails.

Wim Heemskirk

Once upon a time in West Papua



Born and raised in the Netherlands, Wim is a retired civil engineer, specializing in water management. For more than fifty-five years, he has been a planted aquarium enthusiast, and in the late 1970's he started breeding rainbowfish. At first his focus was the larger species and later came his intense interest and specialization in blue-eyes. Wim's interest in blue-eyes started with *Pseudomugil connieae*, which had been shown at an aquarium exhibition in Antwerp, Belgium. The behaviour of the *Pseudomugil* was different than the other rainbowfish he had been keeping, and they attracted his attention. After

gaining more information about the blue-eyes, an interest in these species was born. At the time blue-eyes were very rare in Europe, and in order to preserve them in Europe, it was essential to start breeding them. This was the start of a passion for blue-eyes which led to Wim participating in seven trips (so far) where he saw and discovered blue-eyes in their natural habitat. Having participated in four trips in Australia and another three to West Papua, one of Wim's primary goals is the preservation of blue-eyes, preferably in the wild but also within the hobby.



Despite the careful planning beforehand, during the actual expedition to collect fishes a lot of things happen. This presentation is about the 2023 expedition to West-Papua that was undertaken by Johannes Graf, Henni Ohee, Christophe Mailliet and Wim Heemskerk. It will focus on the ups and downs of the twenty-day expedition. The presentation includes pictures and videos of the exploration of the rainforest streams and creeks around the Fly river where we collected a few species of *Melanotenia* and *Craterocephalus*. A visit to Lake

Mbuta lead to the rediscovery of *Pelangia mbutaensis* and *Melanotenia Lacunosa*. The expedition continued in the Kaimana area and Arguni Bay where a few already known species of *Melanotenia*, which weren't available in the hobby, were collected. It also brought my personal highlight of the expedition, the discovery of *Pseudomugil c.f. paludicola* in a small creek in the Arguni Bay area. The end of the expedition took us to Kali Klademak in Woroth, where Marten Luther Salossa spend his youth, to collect a beautiful *Melanotenia fredericki*.





Flying Fox Creek, en route to Gove Peninsula, East Arnhem Land, NT. (Below) Male Chequered Rainbowfish from Flying Fox Creek. Photos: Gunther Schmida





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Shrimp, fish and plant safe, eliminates pests such as planaria, hydra and vorticella.

PURIFY PLUS
A complete, highly concentrated water conditioner and planted tank supplement.

PURIFY +PROTECT
A complete, highly concentrated water conditioner and fish health treatment.

PURIFY
A complete, highly concentrated water conditioner for use in fresh and salt water.

TRIPLE B
A concentrated solution tailored to reduce growth of algae such as BBA.

DRY FERTILISERS, ADDITIVES AND TREATMENTS

ROOT TABS
Specialised slow-release substrate capsules that supply micro and macro nutrients.

CRYSTAL CLEAR
A synthetic polymer that filters nitrogenous waste and tannins for crystal clear water.

SHRIMP GH+ PREMIUM
Specially tailored to supply minerals, trace elements and Vitamin C essential for shrimp.

PH MINUS
Lowers the pH of your aquarium water, increasing acidity.

PH PLUS
Raises the pH of your aquarium water, reducing acidity.

STABLE SEVEN
Designed to set your aquarium pH to neutral 7, and your KH to 7 degrees.

ALL-IN-ONE PREMIUM
A super concentrated dry fertiliser that supplies all the nutrients your plants need.

ALL-IN-ONE SHRIMP SAFE
A super concentrated dry fertiliser tailored for keepers of sensitive ornamental shrimp.

POTASSIUM NITRATE & POTASSIUM PHOSPHATE MIX
Conveniently supplies a balanced mix of KNO₃ & KH₂PO₄ to avoid separate dosing.

POTASSIUM NITRATE & POTASSIUM SULFATE MIX
Conveniently supplies a balanced mix of KNO₃ & K₂SO₄ to avoid separate dosing.

MONOPOTASSIUM PHOSPHATE
Supplies a balanced mix of Potassium and Phosphorus, essential for plant growth.

MAGNESIUM SULFATE
Supplies Magnesium and Sulfur, essential for plant growth and root development.

CALCIUM NITRATE
Provides Nitrogen and Calcium, essential for chlorophyll production and plant structure.

POTASSIUM SULFATE
Provides Potassium and Sulfur, essential for healthy growth and root development.

GH BOOSTER 1:3:3
A balanced mix of Magnesium, Potassium and Calcium to raise General Hardness.



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Lyle Squire Jnr.

Sawfish collection in the Gulf of Carpentaria for public Aquaria

Lyle Squire spent his childhood years at the Cairns Oceanarium, caring for marine animals of all sizes and description. It was this grounding that has engendered an intimate knowledge and passion for all marine creatures. Lyle became an aquarium fish collector to supplement his income during his university studies in the early 1990's.

When the opportunity arose to purchase the company in 1994 that employed Lyle and his brother as divers, Lyle's business acumen helped the business grow from a small operation working from a single wooden boat to the world leader that it is today 34 years later.

Lyle has extensive experience in the collection and husbandry of more than 1,000 species of marine fish, corals, invertebrates and elasmobranchs. He has in excess of 5000 dives in a vast array of habitat types around the world. He has also developed the methodology and technology for airline approvals for the transport of large marine and freshwater species for zoos and aquariums all over the world. This expertise is built upon pioneering logistically complex orders on chartered 747 aircraft for long haul transport of living marinelife.

Lyle has continued to develop his keen interest from childhood, in native

freshwater animals and their preferred habitats across northern Australia. Lyle has spent over 10 years collecting and husbanding sawfish from the Gulf of Carpentaria. Today Lyle consults with public aquaria around the world about the transport and husbanding of sawfish, many of which he collected as far back as 1989. As these animals have grown to adult size, Lyle has been regarded as the world expert in relocating these animals from one public aquarium to another anywhere around the world using standard commercial passenger aircraft. This includes animals up to 3.85 meters in length and 180 kg.



Lyle will talk about sawfish collections in the Gulf of Carpentaria for the purpose of display in public aquaria, including transporting Sawfish nearly 4 meters long between countries, and the conservation benefits derived. Sawfish have been a Cites listed animal for 25 years and Lyle is now involved with moving some of the animals initially collected, as aquariums seek to breed them. Lyle will talk about a couple of specific moves including some video footage of it.

Marten Luter Salossa

From Cryptocoryne rivers to coastal streams and Ayamaru Lakes; Western New Guinea has unique biotopes

Marten Luter Salossa was born on 5 July 1982 in Sorong, West Papua. Now working as a General Physician (GP) he is founder and director of Save Ayamaru Lakes (SAL), a non-profit organization based in Ayamaru district, West Papua. Marten has made videos and films about the New Guinea freshwater biotope habitats which are routinely published on his YouTube channel 'Tamalin.TV'. Many of his videos have inspired aquarists in designing their biotope aquariums at home or in aquarium design contests. Marten is also an author of several articles about Ayamaru lakes and other freshwater habitats which have been published in Australian, Polish, French and Spanish aquarium magazines.

Marten discovered his passion for freshwater habitats when he was still in medical school in North Sulawesi when he unintentionally recorded *Melanotaenia boesemani* in its natural habitat with an underwater camera at his hometown of Ayamaru village. His first video of *M. boesemani* in the wild mesmerized many aquarists from around the world, among

them aquarists from Warsaw, Poland and France who sent him an ANGFA article about *M. boesemani*. Marten soon realised how important this fish is, and remembered clearly how his grandfather was once a local trader of wild Ayamaru lakes rainbowfish when Marten was still a child in Sorong. His grandfather used to fly to Sorong from Ayamaru village in a small plane, taking plastic bags with aerators filled with 'Ikan Hias', Malay words meaning ornamental fish. These were the now famous *M. boesemani*.

This strong memory of his childhood motivated him to set up the Facebook page "Save Ayamaru Lakes" to educate aquarists and conservationists around the globe and raise awareness about the habitat of endangered Harlequin Rainbowfish '*Melanotaenia boesemani*'. Not long after that the editor of the reputable aquarium magazine 'AMAZONAS' contacted Marten asking for more information on Ayamaru lakes, ultimately publishing Marten's first article 'The Forgotten treasures of Ayamaru Lakes' in October

2014. Subsequently, the Belgium magazine Aquariumwereld and IRG republished the same article in 2015. IRG also sent Marten an underwater camera to help with documenting rainbowfish habitats.

Marten continues his explorations, travelling around West Papua, especially Vogelkop Peninsula, walking and on motorbikes, exploring creeks and rivers to highlight the species of rainbowfishes, gobies, crustaceans and other invertebrates. In February 2016 international aquarist Chris Lukhaup joined Marten on a tour where they collected crustaceans and invertebrates. At the end of that year, Marten took Heiko Bleher out as well.

In 2017 Marten was invited to be a speaker at the IRG Congress in Netherlands. Here he finally met Gary Lange, Johannes Graft and Wim Heemskerk who then asked Marten to join them on their first expedition to West Papua in August 2017. A second trip was undertaken in 2019, and the most recent trip with them was in 2023.



In my explorations of the western half of New Guinea Island, I consistently encountered similar habitats in terms of physical conditions and ecological features. For instance, in the rivers and creeks of the Vogelkop Peninsula, rainbowfish are typically found inland, deep within the forests or jungles, far removed from the coastal areas which are often a mile or more away. However, my experience in the Birds Neck was quite different. There, I found a creek

remarkably close to the coastline, only about a hundred meters from the beach, bordered by hills, where I came across a beautiful rainbowfish.

Another distinct biotope I came across was marshes with shallow water situated in the headwaters of Ayamaru lakes. These marshes are rich with aquatic plants, and although I haven't set up a photo tank for these lovely rainbowfish yet, I hope to return and do so in the future.

Yapen Island provided another intriguing

biotope. It boasted an abundance of *Cryptocoryne* plants, which I hadn't encountered elsewhere in West Papua, particularly in Vogelkop Peninsula or other parts of mainland New Guinea.

My primary focus has always been the Ayamaru Lakes project, aiming to promote rainbowfish conservation in West Papua. I believe it can serve as a model and focal point for efforts to preserve rainbowfish habitats throughout New Guinea.

Nathan Waltham

Future climate implications on freshwater species in Northern Australia



Assoc Prof Nathan Waltham is a Senior Lecturer at James Cook University, with a particular focus on freshwater rivers, floodplains and coastal estuaries. His research extends across northern Australia, PNG and expanding into southeast Asia. He has a particular interest in how these ecosystems respond to land use changes, from man-made activities, but also future climate variability. He takes a landscape approach to research, examining functional traits, food webs, habitat

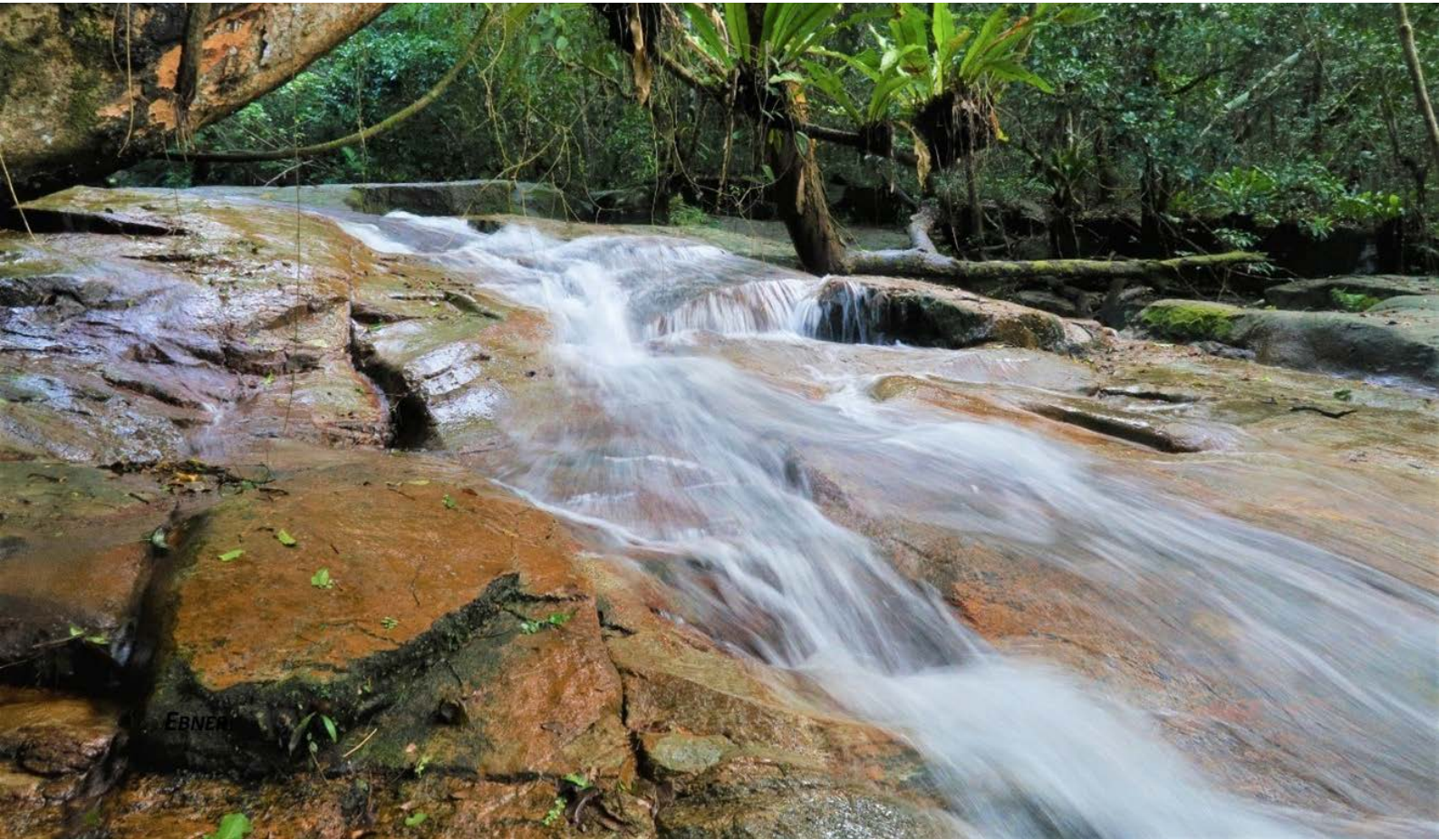
constraints and how species interact with the water environment. More recently, he has focused on restoration efforts to conserve and protect species, which involves working with a diverse range of partners, from Traditional Owners, government, industry, community, NRM and NGO groups. He is an Associate Editor for Estuaries and Coasts, Scientific Advisory Board member for the Wet Tropics Management Authority, Scientific Lead for the Great Barrier Reef

Wetlands Network, and Co-Lead for the Australasian Coastal Restoration Network. Nathan supervises students from around the world, with projects extending across fisheries micro-otolith chemistry, blue carbon, fish nursery and habitat restoration, to invasive species and governance in coastal protection. His spare time is spent outdoors, in the environment looking and learning. He is also a member of the IUCN Freshwater Crustaceans Specialist Group.



Warmer climate conditions are predicted across northern Australia which means species will either need to adapt, move, or not survive. For aquatic species, moving might be challenging, so adapting will be important and necessary. Using field water temperature data for waterholes and river systems, and combining with acute thermal tolerance experiments, we have started to get some insight into how future climate conditions might impact freshwater species. Fish will probably need to

access cooler areas of river systems or wetlands, for extended periods of the day, while some freshwater crustaceans will need to engage aerial thermal refugia. Understanding these responses and consequences now will better help managers and landholders to undertake restoration actions. The expansion of water resource development in northern Australia must also consider changes to thermal patterns in rivers and floodplains, so that our sensitive freshwater species are protected.



Ebb is interested in freshwater and marine fishes and is a life-long aquarium hobbyist. He grew up in a commercial fishing family operating out of Mooloolaba Harbour before moving to Townsville to study Marine Biology. Professionally, he has spent 15 years initially in the Murray Darling Basin, followed by 14 years in the

Wet Tropics, before moving to the Grafton Fisheries Centre (Freshwater Ecosystems Research) in New South Wales. His work borders natural history and conservation science, often relying on direct and remote observation (e.g. underwater video). He has a passion for behavioural insights of rare and/or threatened species and has studied

freshwater morays, cling gobies, sawfish and various percichthyids. The research team that he currently works with is focussing on behaviour and habitat restoration for eastern freshwater cod. Ebb enjoys conceptualising the habitat use of species throughout their life cycle and often achieves this in collaboration with others.



There is an interesting assemblage of fishes that occupy the short-steep-coastal-streams of the region. Some of these fishes are widespread and common in eastern Australian catchments to the north and south but more often the fishes are shared with the

Pacific Island streams. The presentation will cover a selection of secretive and glamorous species and the quirks of their habitat specificity within these stunning streams. Freshwater moray, pipefish, and gobies among them.

The Convention Planning Committee hopes you
learned hearing from experts in their fields
laughed while catching up with old friends
exchanged knowledge about fish-keeping and conservation
shared stories with new friends
got some treasures at the trading tables
indulged in the convention dinner
got your feet and dipnets wet on a field trip
and enjoyed the 2024 ANGFA National Convention

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