

VICTORIA Inc. Regional Group VICNEWS

Number 133 February 2024

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Dr Robert Walsh is our February guest presenter with "The microfaunal biomass is effectively the "larder" of any freshwater ecosystem" and "You cannot manage what you don't measure!"













Dr Robert Walsh, principal consultant of Australian Waterlife, has a PhD in Limnology with a concentration in Aquatic Microcrustacean taxonomy and ecology and has over 20 years experience as an aquatic micro-invertebrate ecologist, wetland ecologist and limnologist; specializing in micro-invertebrate taxonomy, the limnology of inland bodies of water (lakes, dams, ponds), and water quality analysis.

Dr Walsh will give a presentation in two parts: "The microfaunal biomass is effectively the "larder" of any freshwater ecosystem" and "You cannot manage what you don't measure!" Dr Walsh is bringing along some microscopes and live samples that we can look at after the presentation.

Contents

Our next club meeting presentation 1
President's report and end of year BBQ 2-3
Field Trip Files: Inland north-west Tasmania 4-14
Club meeting details and key contacts 15

President's Report February 2024

Welcome to VICNews 133! At our club meeting of 1st December, Dr Michael Hammer gave a fantastic presentation on the history of the Purple-spotted Gudgeon in the Lower River Murray; giving valuable insight and context to the work ANGFA Vic, Middle Creek Farm, NCCMA, NFA and City of Greater Bendigo have been doing with this species.

On the 9th December we had our annual end of year BBQ and get together at the Nangak Tamboree Wildlife Sanctuary at LaTrobe Uni in Bundoora. The weather was a bit bleak, but the company was great and Jenny Briggs put on a sumptuous Christmassy dessert spread complete with Christmas-themed napkins, table cloth and cups! Even the fruit salad was in the Christmas colours of reds and blues. Whilst I'm mentioning Jenny, I would like to giver her a huge thank you also for her fabulous club meeting suppers - always carefully thought out, beautifully presented and with different dietry requirements catered for. Wonderful.

We have several field trips coming up in the next two months:

- 1. The weekend of 10th and 11th February 2024 is an overnight trip to the **upper-mid Goulburn River** to collect eDNA samples, looking for *Galaxias rostratus*, as part of the NCCMA funded eDNA collection effort. If you are intending to come along I will need to know in advance so we can organise appropriate accommodation for attending members.
- 2. Friday 8th March Monday 11th March (Labour Day weekend) is the annual ANGFA/NFA field trip to the **Murray River** at Burke's Beach.
- 3. The weekend of 16th and 17th March is a field trip to **Bendigo** to sample the recently released Olive Perchlet to monitor how well they are doing and if they have recruited. This will be followed by a dinner on the Saturday night to celebrate the success of the conservation efforts to get Southern Pygmy Perch established in Gunbower Forest. Once again, I'll need to know numbers prior to the event so that we can organise appropriate accommodation for attending members.

A big thank you to the ANGFA members that attend our field trips - it is always great to get out into the bush!

Enjoy this edition and we'll see you at the next meeting on Friday 2nd February for a relaxed evening of learning, of fun, plenty of chat time and catching up with fellow fishos!



Flathead Galaxias Galaxias rostratus. Photo: Neil Armstrong



Above: Left to right: Punyanat Phawande, Fraser Asquith, Gybe and Owen Forster, Henry Albert, Tim Curmi, Peter Gauci, Rod Wubben, John Lenagan, Katrina Mock, Jenny and Glenn Briggs. Photo: Greg Martin





Above and top left: Tim Curmi, BBQ officianado, cooked all the meat on the day - thanks champ! Photos: Greg Martin.









Above and left: A sample of the delicious dessert feast Jenny Briggs supplied and presented at our end of year BBQ. Photos: Greg Martin.

Field Trip Files: Inland North-west Tasmania, 23rd - 27th November 2023











On the way to the Bob Brown Foundation Bioblitz 2023, Phil Littlejohn and I took a minor detour to check out a location where *Astacopsis gouldi* and *Astacopsis tricornis* both occur in the same creek in the hinterland a short drive from Penguin, on the central north coast.

We wanted to have a really close look at the distinguishing differences between the two species by comparing them side by side. Phil had no trouble finding several craysfish, and it turned out there were a few of each species.

With juveniles the main difference is that *Astacopsis gouldi* has a central ridge between the rostral marginal spines (photo middle left) whereas in *Astacopsis tricornis* there is no central ridge (photo lower left). Photos: Greg Martin



Aquatics survey helpers with Cecil Ellis in waders in the middle. Photo: Greg Martin

On Thursday 23rd November 2023, Phil Littlejohn and I flew down to Tasmania to attend the Bob Brown Foundation (BBF) Bioblitz 2023 - representing ANGFA Vic as aquatics survey leaders. Myself and several other ANGFA Vic members have been involved in surveying in this event each year since the very first BBF Bioblitz in 2015, with the exception of 2020, 2021 and 2022 (due to COVID 19).

For 5 years, from 2015 - 2019, the BBF Bioblitz was located in the far north west, with home base at Scotchtown just south of Smithton. In this location there there is a good mix of un-dammed coastal rivers, creeks, coastal wetlands as well as forested rivers further inland with a few notable species hotspots (the Frankland River to name one in particular) that are not **infested with introduced trout**.

In 2020 they moved the BBF Bioblitz home base to Waratah, approx. 100km south south east and well inland.

The local rivers here to the west and south west are the Pieman River (dammed upstream of Corinna forming Lake Pieman) and its main tributaries upstream of the dam wall; the Whyte River, Stanley River, Huskisson River, Wilson River, Stitt River, Ring River, Heemskirk River and the Heazlewood River, not including all the creeks. It is worth mentioning that the Donaldson River and Savage River, also tributaries of the Pieman River, have their confluences with the Pieman River downstream of the Dam wall and are therefore not impeeded by a dam wall.

To the north of Waratah the main river system is the mighty Arthur River with its tributaries the Frankland, Lindsay, Leigh, Horton, Hellyer, Lyons, Keith and Rapid Rivers. The Arthur River system is not dammed and, at least in the lower reaches, has good species diversity.

Rivers that are dammed seems to support (almost) only trout above the dam wall (barrier to the ocean). This is my annecdotal observation based on surveying the rivers in the far north west (all undammed) in 2015, 2016, 2017, 2018 and 2019. And then in 2019 and again in 2023, sampling tributaries of the Pieman River above the dam wall.

The difference between the Frankland River and any one of the tributaries of the Pieman River that flow into Lake Pieman, is staggering: In the Frankland River we found *Galaxias brevipinnis*, *Galaxias Maculatus*, *Galaxias truttaceus*, Australian Grayling, Shortfinned Eel, Short-headed Lamprey and Giant Freshwater Crayfish. In the rivers that flow into Lake Pieman: trout.





Middle: Lake Pieman at the dam wall on a very windy day. Above: Looking downstream over the building that houses the generators. Photos: Greg Martin

VICNews 133 February 2024

Page 5



Heazlewood River, upstream of Waratah Road. Photo: Greg Martin







Middle left: Macroinvertebrates survey leader Cecil Ellis. We worked closely with Cecil as there were not many fishes (trout, trout and more trout) at the sites this year compared to the coastal sites of previous years. Middle right: Lunchtime during surveying for macroinvertebrates at the Heazlewood River. Bottom: Departure point where all the different survey groups dispersed from at the Heazlewood River site. Survey groups included Orchids, Birds, Botany, Mammals, Reptiles, Amphibians and Arachnids, as well as Fishes and Macroinvertebrates. Photos: Greg Martin









Top left: Phil Littlejohn rock turning looking for something other than macroinvertebrates. rest of this page: dipping and picking for macroinvertebrates at the Heazlewood River. Photos: Greg Martin







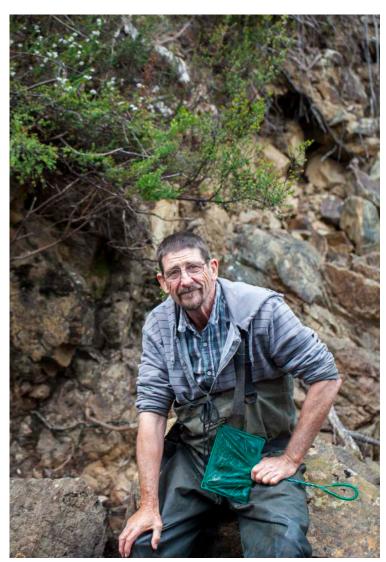
Brown Trout (middle left), one of several and the only fish species we found in the Heazlewood River, was humanly dispatched (top) and the gut examined for any clues as to what they are eating in the river. Bottom right: Flies, and the legs from Stonefly larvae (bottom left) squeezed from the gut of the Brown trout. Photos: Greg Martin



VICNews 133

February 2024

Page 8





Left and bottom: Phil Littlejohn about to embark on digging up a crayfish burrow along the bank of the Heazlewood River. Top right: an enormous Water Spider (Pisauridae?) sitting on a stump by the river. It could be spotted a fair way away as the leg span, front to back, was every bit of 150mm. Photos: Greg Martin



VICNews 133

February 2024



This page: Whilst surveying the Whyte River (a tributary of the Pieman River) for macroinvertebrates, Phil Littlejohn found this juvenile Freshwater Crayfish Astacopsis tricornis. Astacopsis tricornis is found across central and south western Tasmania unlike Astacopsis gouldi, the Giant Freshwater Lobster, that is found in the Arthur River system and eastwards across northern tasmania in all river flowing into Bass Straight, except for the Tamar catchment. Photos: Greg Martin



Wey River, a tributary of the Hellyer River, Arthur River catchment. Photo: Greg Martin







Above: Phil Littlejohn turning rocks in a small creek flowing into Wey River, hoping to find crayfish - he did! Middle and lower right: Ombrastacoides leptomerus. Ryan Francis, who ID'd this cray, told me "they are reasonably common in that area, making it almost to the (west) coast. They are undersampled in the far north west though. I am confident they are throughout the Arthur River catchment, but I haven't confirmed it and there are no existing records." Photos: Greg Martin





Farm Creek (photo at top) runs directly into Lake Pieman and we surveyed here during Wildblitz in 2019. Whilst we have only found trout (?!) at this location, the macroinvertebrate fauna is good. Bottom: the tray of a ute provided a very convenient 'table' for our macroinvertebrate trays and we spend hours picking though our samples (this page and the next page). Photos: Greg Martin





Above: Cecil Ellis talking about the macroinvertebrates found under these rocks. Below: the painstaking process of picking macroinvertebrates out of the white tubs - the kids, with their sharp eyes, loved it! Photos: Greg Martin









In summary, surveying for fishes when there only seems to be trout present, is frustrating. The dams in that area (Lake Pieman, Lake Mackintosh and Lake Rosebury) are dramatic and certainly impressive but they feel like relics from another time and another way of thinking. On the bright side, the inland far north west around Waratah is very beautiful. Here are some shots taken around waratah. Photos: Greg Martin



VICNews 133

Club meeting details and key contacts of ANGFA Vic

Office Bearers 2023

President: Greg Martin 0407 094 313 Treasurer: John Lenagan 0413 730 414 **Secretary:** Glenn Briggs 0408 771 544 **Grant Applications and Permit Writer:** Tim Curmi 0417 419 765 0407 094 313 Field Trip Coordinator: Greg Martin Field Trip Safety Officer: Rodney Wubben 0409 890 866 Membership Officer: Rodney Wubben 0409 890 866 Committee members: Chris Lamin, Paul Byham, Gybe Forster, Matt

McGee, Sunny Syme and Peter Gauci

Other fish groups in Victoria

Plant Study Group Contact: Eddie Tootell (03) 9337 6435 **Aquarium Society of Victoria** Contact: Daryl Maddock (03) 9874 1850 Native Fish Australia Vic. Contact: Tim Curmi 0417 419 765

Victorian ANGFA National LIFE MEMBERS

Past

Ron Bowman and Barry Crockford

Present

Neil Armstrong, Glenn Briggs, Ken Smales and Tony Tucceri

ANGFA VIC CLUB MEETINGS

are held at the Field Naturalists Club of Victoria

Doors open at 7.30pm

1 Gardenia Street Blackburn, Victoria

Meeting dates for 2023:

Friday 3rd February 2023 Friday 14th April 2023 (a week later than normal) Friday 2nd June 2023 Friday 4th August 2023 Friday 6th October 2023 (Includes our AGM) Friday 1st December 2023

Meeting dates for 2024:

Friday 2nd February 2024 Friday 5th April 2024 Friday 7th June 2024 Friday 2nd August 2024 Friday 4th October 2024 (Includes our AGM) Friday 6th December 2024

Page 15