



Biology Educators' Association of New Zealand Te Rōpū Whakaako Koiora o Aotearoa

Term 3 2017 Newsletter

web: beanz.org.nz

email: biologynz@gmail.com

Introducing our new Junior Vice President Nicky Wallace

I began my teaching career at Fraser High School in Hamilton after finishing my Graduate diploma in 2007. Prior to this I was employed at Ag Research in Hamilton as a regular lab technician, going about doing routine testing, gene analysis and small animal trials. As predicted this became a little tedious after the first week or two and I began looking for other options. I didn't intend to go into teaching, but after becoming quite good at helping out in the first year Biology labs while doing my MSc (along with some 'gentle' persuasion from Alison Campbell), I went after what would become my passion in life, teaching Science, Maths, Biology, Chemistry and now Physics to High School Students.



I am currently at Rotorua Boys' High School as the Head of the Science Faculty and sought out the JVP role at BEANZ as a way to give back to the career that has given me so much already. After a slight health hiccup in 2013, I feel that in order to

get the most out of life you must make the most of every opportunity that you are given. Biology has always been a passion of mine and making it accessible to our students by inspiring the teachers teaching them I see this as one of the greatest opportunities that I could be given. I am looking forward to working with a group of like minded individuals and hope to make a good contribution to the BEANZ community.

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A Standing Committee of the New Zealand Association of
Science Educators

Executive Position	Name
President (NZASE Rep)	Sharyn Varcoe
Senior Vice President	Kate Rice
Junior Vice President	Nicky Wallace
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Tertiary Biology Education	Hamish Spencer
Assessment Project	Kenneth Loh Bill van den Ende
Science Facilitators	Mikhal Stone
Regional Rep. Coordinator	Nicky Wallace

Africa to Aotearoa—the longest journey

An Otago University – Allan Wilson Research / BEANZ project funded by Curious Minds

It was great to see so many delegates participate in the Africa to Aotearoa workshops at BioLive and satisfying to be able to provide free DNA kits to a lucky 20 BEANZ members on top of the more than 200 that have been distributed over the last term. The results are starting to arrive which is exciting. Even if you didn't receive a DNA kit we encourage you to make the most of the extensive resources that can be accessed via <http://www.otago.ac.nz/allan-wilson-research/study/africa-to-aotearoa.html> This includes two newly posted videos by Professor Lisa Matisoo-Smith, telling the story of the human journey out of Africa, and focussing on the settlement of the Pacific. On the same page you will also find several other teaching resources that are free to use. These include instructions to assist you with a very important part of the project – making and uploading student videos of their own journey to Aotearoa. A wonderful way to celebrate diversity in our country. Newsflash – there are another five DNA kits available! These will be awarded to the five best videos received by 15 October. Professor Lisa Matisoo-Smith and the Africa to Aotearoa team are looking forward to hearing the students' stories.

Keep in mind BEANZ members can also access additional resources from the “Exploring who is a New Zealander” workshop which ran in many regions during late 2016. These resources, as are previous workshops, are available via the members only area of our website.

Animal Behaviour Study

B3.1 QAAM Task and Resource Pack

As requested by members, BEANZ has produced another QAAM assessment task along with an accompanying teaching and learning resource pack. This year the task is AS91601 Bio3.1 “Carry out a practical investigation in a biological context, with guidance” using animal behaviour study as a context. There is scope for use at wildlife parks, zoos, bird sanctuaries, local beaches and waterways or potentially at a farm or lifestyle block. The task has been successfully trialled in a New Zealand school and uses minimal resources. The resource pack includes guidance for teachers not familiar with animal behaviour observation including use of ethograms and observation methods as well as student exemplars at the different grade levels.

For those new to this, QAAM stands for Quality Assured Assessment Materials which means that NZQA have already checked the assessment materials and guaranteed they are at standard. This means you can use them with confidence. This process costs in excess of \$1000 and is a lengthy process, outside the financial capabilities of most schools so BEANZ provides this as a service to our members free of charge as a way of supporting you. The value of this resource depends on the continued security of both the task and schedule so it will only be accessible through BEANZ via the members only area of our website www.beanz.org.nz A reminder that you can also access the QAAM Bio2.1 “Variation in a Forest Canopy” in the same way.



I.T Idea: Padlet

Bring your classroom brainstorm / opinions/ conclusions to the 21st century with Padlet's Wall. Students share ideas which are displayed on your projector screen. You can even save the display for future use (or your teaching e-portfolio).

Siouxie Wiles

A head's up that BEANZ is partnering with Dr Siouxie Wiles and her team to put together a “microbes” workshop for BEANZ members. We know that those of you lucky enough to attend Siouxie's BioLive workshop were very enthusiastic and keen to explore further, so keep an eye out for further details early term 4.

Primary Industry Resources

The PICA curriculum network together with MPI recently collaborated in the development of primary industries curriculum resources that focused on **animal welfare, biosecurity and food**.

These resources have now been released on the MPI website. The package includes professional development videos, curriculum linked activities for levels 1-5, and a virtual field trip. You can find all of this at the below link:

<https://www.mpi.govt.nz/news-and-resources/teacher-resources/te-ao-turoa/>



It was wonderful to see so many members at BioLive and the BEANZ AGM. There were nominations for many regional representatives and executive positions and the results of this can be seen below. Only two regions now do not have a BEANZ representative – Gisborne and Taranaki. Would you like to step up too? If so, please contact us biologynz@gmail.com

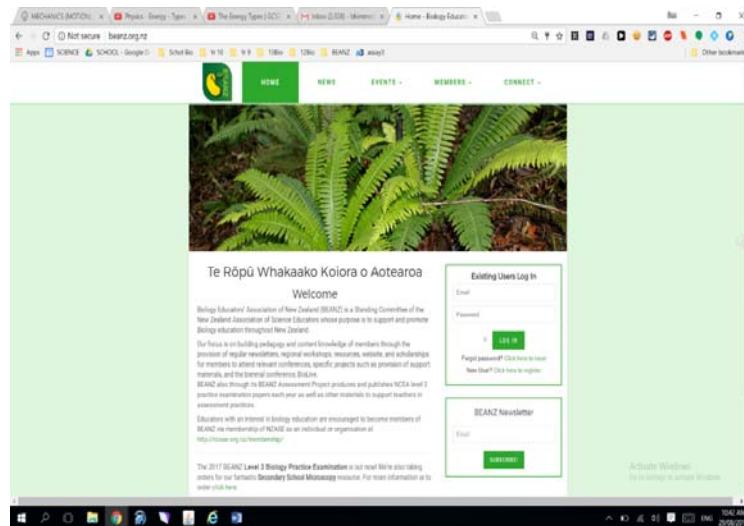
Biology Educators' Association of New Zealand

Te Rōpū Whakaako Koiora o Aotearoa

A Standing Committee of the New Zealand Association of Science Educators 2017

Region	Name	Email Contact
Northland	Julie Harrison	JHarrison@kerikeri.ac.nz
Auckland	Mike Stone	m.stone@auckland.ac.nz
	Penny Daddy	pennyD@stcuthberts.school.nz
Waikato	Mike Wilson	mwilson@shgcham.school.nz
	Dean Suter	SuterD@faircol.school.nz
Bay of Plenty	Jean Grattan	jgrattan@otc.school.nz
Central North Island	Kieran Tibble	kierant@haurakiplains.school.nz
Gisborne		
Hawkes Bay	Sarah Gunn	sgunn@karamu.school.nz
Taranaki		
Manawatu-Wanganui	Chris Corser	c.corser@pnghs.school.nz
Wellington Region	Sue Weich	sweich@chilton.school.nz
Nelson Marlborough	Sarah Johns	sarah.johns@ncg.school.nz
West Coast	Erica Jar	erica.jar@buller.ac.nz
Canterbury	Ian Reeves	rvi@papanui.school.nz
Otago	Pru Casey	pru.casey@gmail.com
Southland	Lee Pirini	lee.pirini@southlandgirls.school.nz

BEANZ Website www.beanz.org.nz



We've been busy working on our new website and adding lots of new features and content. Here's an outline of what's new:

[Members Only Area](#)

This area gives members access to the **Bio 2.1 QAAM Task** (*Quality Assured Assessment Material*). This is essentially an alternative assessment task for Bio 2.1 that is guaranteed to meet NZQA moderation requirements.

Missed the BEANZ workshops? You can now download the resources from our workshops including some great resources for **Homeostasis** and **Human Evolution**.

[Keep up to date](#)

Subscribe to our newsletter and keep up to date with current events, workshops and special offers.

[Not sure if you're a member?](#)

Your school may already be a member. You can now check whether you or your school holds a current membership on our website. If your school is a member you can create a BEANZ account instantly.

Not a member? You'll need to sign up with NZASE (New Zealand Science Teachers Association). Don't forget to select BEANZ as a sub-committee during registration. It may take several weeks for your membership details to reach us, but we'll email you with an account activation link as soon as it's ready. If you're desperate, send us an email and we can try and fast track this for you. We're working with NZASE to try and streamline this process. We hope that in the near future accounts will be activated the moment you first sign up with NZASE.

[BEANZ Examinations](#)

Download order forms for the BEANZ exams or Microscope Resource directly from our website.

Teething issues

We apologize to our existing members who were sent two emails with different account details during the roll-out of the new website. The first email was the result of a glitch in our system and the credentials provided will not work. An email with the correct details was sent moments later. Please ignore the first of these two emails. We continue to make improvements and hope to add more content to the website soon. Any users with account issues please contact bhimme@nghs.school.nz. We appreciate your patience. BEANZ is run by volunteers who give up their free time to bring you this service.



BEANZ Scholarship recipients at BioLive

Thanks BEANZ for supporting new teachers. It was great to attend the BioLive ChemEd conference. I was very fortunate to be able to meet some wonderful people as well as having the opportunity to collect resources, ideas and inspiration to share with my school. **Chantal Hillier** – Columba College, Dunedin

Recently I had the opportunity to attend BIOLIVE. It was facilitated by receiving a scholarship from BEANZ. I am very grateful to the association for this support as I would not have been able to attend otherwise from our PD budget. Thanks to this support I was able to present a workshop on embedding principles of Sustainability into Biology curriculum. With in the workshop we explored the standards we offered and how they can be modified to embrace a theme of sustainability. This required a short explanation of the principles of Education for Sustainability and how to offer it in a palatable format for student uptake. I gained as much from the workshop as the participants. But this is a subset of my gains from his conference. I was able to make meaningful connections with the professionals in my industry and glean information essential for my unit planning and curriculum delivery. I look forward to building on this and offering more feedback in future events. **Brent Barrett**- Ao Tawhiti School, Christchurch

The scholarship assisted me in attending the Biolive & ChemEd Conference 2017, in a significant way. I am new to teaching and my current school, Amuri Area School is a 1 & a 1/4 hour drive north of Christchurch. Upon seeing the conference advertised I was actually disappointed to see it was in Cambridge (as I knew that my school would not have the funds to send me). This scholarship turned my disappointment into anticipation and then excitement, as it allowed me to approach the senior management with a far less financially demanding professional development proposal. Two highlights from the Biolive & ChemEd Conference were:

The keynote speakers: Sam Kean, Michele Prinsep & Sir Ray Avery.

They were all from very different walks of life, but each had a fascinating story to tell about an aspect of Science that they live everyday. It was inspiring to hear some of their personal experiences and analyse their perspectives.

The Physical Social Networking: Getting to know other teachers from NZ (and abroad) and the education publication company representatives in person was something that I had not had much opportunity to do. Catching up with colleagues from other schools, sports teams and university days was a priceless experience for me. **Simon Gannaway** – Amuri Area School

I am really grateful to BEANZ for the opportunity to attend BioLive, without the scholarship I would not have been able to attend due to the conference being in the North Island. I really enjoyed the workshops and found them applicable to the courses that I'm teaching this year, in particular Ian Reeves presentation on a new context for the patterns in a community level 2 internal. I am looking forward to using this context with my class this term. I loved the 'Bees in schools' workshop and will be looking into getting a hive at our school this summer. Thanks again for the opportunity, I had an awesome time! **Tahlia Whiting** – Lincoln High School

The scholarship provided by BEANZ to attend the Biolive conference has given me an invaluable opportunity to develop new networks and meet other professional in the field. The workshops served as a good refresher and most important of all, gave me some new ideas to experiment with, and implement into my own teaching programmes.

I personally found the workshop (facilitated by Pru Casey) on Scholarship Biology the most memorable one. It allowed for the opportunity to share ideas and collaborate on different approaches to help students tackle the schol paper. **Kenneth Loh** – Ormiston Senior College, Auckland.

The other scholarship recipients were
Kieran Tibble – Hauraki Plains College

Carmen Kenton – Hagley Community College, Christchurch-
Nicola Turner – Murupara Area School

NZIBO Teacher scholarship



So that teachers can fully appreciate the post-school parts of the NZIBO programme, NZIBO offers two scholarships to the training and the selection camp. This year Andrea Roberts (Karamu College), and Michelle Isbister from Hauraki Plains College joined the merry NZIBO crew. These scholarships included transport to and from the camp, accommodation and meals at the camp and full participation in all of the learning, trips and labs (just like the students). Here is what they said...

Andrea Roberts, Karamu College... “All I can say is WOW!!! As a Biology teacher it is an amazing feeling when you get one or two students in your class super enthusiastic about Biology, but 25!!!! Dream come true! ... Seeing the students learn about and study bird behavior on Tiritiri Matangi Island was one of the best field trips I've ever been on. The Evolution Lab I give two opposable thumbs up...”

“...This program is a well thought-out and intensive Biology experience and I highly recommend all Biologists to get involved, either as a student or teacher... The students were all supportive of each other and seemed like a big family, which is outstanding given this was not only a training camp, but a competition to be one of the final four to represent NZ at the International Biology Olympiad later this year in the UK.”

Michelle Isbister, Hauraki Plains College... “What an experience! Before I applied for the scholarship, I did not really know anything about NZIBO. The camp let me learn so much and surrounded me with some fantastic people...students who are going to be New Zealand’s shining biologists in the near future! (they ... are not only great students but, more importantly, great people. During their study for NZIBO, whilst also completing their school requirements, these young people are volunteering in their community, helping others, being school leaders and representing their school and country in other areas. Not only this but they really got involved (and sometimes wet/dirty) in any task given to them be it dissection or doing the dishes...”

“...Students sampled the macroinvertebrate life at Kaniwhaniwha Reserve near Pirongia, and compared this to a sample from an inner city stream. They had many chances to refine their microscope skills, preparing slides, staining samples, and drawing diagrams of stems, Paramecium and stages of mitosis. They had a go at using gel electrophoresis and using a spectrophotometer. In the plant labs they got to practise using floral formula and identify (and taste) many fruit types. Dissections included fish, squid, cockroaches, prawn and insect mouthparts – ...(they) had a go at blood counts, learnt about the work of LIC and heard many young enthusiastic biologists talk about ...their biology research which is currently being undertaken, in fishing management, protein structures, and animal conservation in the rainforests of Costa Rica. After fitting all this in to 4 days in Hamilton the students sat a three hour practical examination where they all excelled. Auckland was part two of the camp with more new experiences – seeing my first wild Tuatara, North Island Robin and a Saddleback. Students examined reptile skulls and further developed their biological drawing skills in the evolution lab... for me, I got to try things out along side these awe-inspiring students, helping the students discover new knowledge and skills. I too, got to develop my own skills and learn new ones. And I made new friends...”

Why not apply next year!! You will also get to meet academics and teachers from around NZ. This is a wonderful professional development opportunity and a chance to work with passionate biologists; students, scientists, and university staff.