

**SOIL SCIENCE AUSTRALIA  
QUEENSLAND BRANCH**

**57th Annual General Meeting  
Minutes**

**Friday 30th August 2019  
Treasury Hotel, Brisbane**

**1. Opening**

The meeting was opened at 6:30 pm by President Jim Payne, with a warm welcome to everyone attending the AGM.

**2. Attendance**

The AGM was attended by 34 members and 14 guests (48 total).

<b>Members</b>	<b>Members</b>	<b>Guests</b>	<b>Apologies</b>
Jim Payne	Pat Blamey	Larsa Aromarshi	Rob Loch
Maondana Shaygoan	Col Ahern	Beverley Leckie	Mark Crawford
Cameron Leckie	Bernie Powell	Xiangyu Liu	Robin Thwaites
Chloe Lai	Robin Bruce	Ben McDougall	
Jason Choong	Mehran Rashti	Soham Dang	
Yingcan Zhu	Maryam Esfandbod	Amandine Schneider	
Monia Anzooman	Andrew Briggs	Amir Shiva	
Mark Silburn	Ben Harms	Jacinta Saad	
Kim McCabe	Angus McElnea	Vicki Ahern	
John Zupancic	Chengrong Chen	Kelsey Powell	
Kylie Bradley	John Standley	Janette Bruce	
Louise Cartwright	David West	Kathryn Mahony	
Rowena McGeary	Stirling Robertson	Mohammad Bahadori	
Silvana Santomartino	John McLean Bennett	Luke Finn	
Howard Briggs	Lauren O'Brien		
Aram Ali	Sunny Jacobs		
Afshin Ghahramani	Aaditi Dang		

**3. Minutes of the 56th AGM**

The minutes from the 56<sup>th</sup> AGM have been published in each of the 5 newsletters of the previous 12 months and a copy of these has been made available on each table tonight. Motion moved to accept the minutes of the 56<sup>th</sup> AGM as true and correct. Moved by John McLean Bennett and seconded by Andrew Biggs.

**4. Business arising from the minutes**

There was no business arising from the minutes.

**5. Secretary's Annual Report**

The Branch Secretary, Cameron Leckie, presented the Annual Report, and it appears below.

## Committee Members 2018–2019

President Jim Payne  
 Vice President Aaditi Dang  
 Immediate Past President Silvana Santomartino  
 Secretary Cameron Leckie  
 Treasurer Diane Allen  
 Newsletter Editor Lauren O'Brien  
 Assistant Newsletter Editor Vacant  
 Events Coordinator Maryam Esfandbod  
 Events Administrator Anne Schneider  
 Events Administrator Jason Choong  
 Communication Coordinator Kylie Bradley  
 Membership Officer Caroline Bennison  
 Far North Qld Representative John Armour  
 North Qld Representative Neil Cupples  
 Central Qld Representative Mark Sugars

The committee met on five occasions during the year (5 December 2018, 7 February 2019, 11 April 2019, 6 June 2019 and 22 August 2019) to conduct the Branch's business, planning and administration.

### Ordinary General Meetings

Five OGMs were held in 2018–2019, as shown below:

Date	Meeting number	Speaker	Topic	Attendance
5 December 18	274	Kylie Bradley	Be the solution to soil pollution	19 members, 3 guests
7 February 19	275	Dr Aaditi Dang	Irrigation and Marginal Water Quality	28 members, 2 guests
11 April 19	276 Student night	Rowena McGeary Melissa Collins Simon Cristaudo Damein Finn	Student presentations Keynote presentation Damien Finn	23 members, 10 guests
6 June 19	277	Mark Silburn	Application of different technologies to measure soil properties in the field	24 members (4 online), 6 guests
22 Aug 19	278	Dr Rebecca Bartley	Using multiple lines of evidence to identify the	24 members, 5 guests

			major sources of sediment reaching the Great Barrier Reef, Australia	
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### Membership

The membership of the branch has continued to be strong at 162 members. Sadly our membership has been in decline with 2018 membership 188 and 2017 membership of 219. The executive and the committee at large is committed to arresting this fall in membership and hope that the advent of a functional membership platform at the federal level will assist in this.

### Branch Newsletter

Five newsletters were produced this year—December 2018, February 2019, April 2019, June 2019 and August 2019. Thanks to the team that gets the newsletter out before each OGM Caroline Benison, Jim Payne and newsletter editor Lauren O’Brien.

### Soil Judging Competition

The 2018 National Soil Judging Competition was held preceding the National Conference. Queensland continued its organizational support of the event with Jim Payne a member of the three person organizing committee. The event was once again very well received by coaches and competitors with 11 teams from 10 Australian and New Zealand universities totaling 57 competitors and coaches. Queensland based consultancies Benneterra and PSK environmental were once again very generous sponsors of the competition.

Sadly, USQ were the only Queensland team able to attend this year, however very happily the team came home with the goods placing joint third in the team's competition. Congratulations to Yingcan Zhu, Aram Ali, Camron Leckie, Adrian Cameron and team coach Andrew Biggs.

This year's competition will be held in South Australia in early October and is once again sure to be a well-attended and hard-fought event. Both UQ and USQ are planning to send a team.

### Queensland Science Contest

This year the Branch again provided a bursary award to students who submitted reports relating to soil science to the STAQ (Science Teachers' Association of Queensland) Science Contest. Angus McElnea and Kate Dolan attended the judging of the 65th annual contest on the 13th October 2018.

There were 10 entries relevant to the Soil Science Australia bursary. Three students were awarded a certificate and \$50 bursary by President Jim Payne. The winners were:

Name	School	Project Title
Jackson Myers	Mudgeeraba Creek State School	Finding solutions to soil erosion around my home
James Aitkenhead	Camp Hill State Infants and Primary School	Does soil types effect bean seed germination and growth?
Lucie Windels	Junction Park State School	What makes sands different?

## **Federal Awards**

Our Vice President and incoming President, Dr Aaditi Dang was awarded the CG Stephens PhD Award.

The CG Stephens is the award given to the best PhD thesis based on its originality, its significance to soil science and its clarity of writing. The panel noted that Aaditi's winning thesis was of national and international significance and exceptionally well presented. The report commended Aaditi's thesis for its uninterrupted line of sight from the introduction to the problem, to building upon and addressing various complexities of the issue in subsequent experimental chapters and concluding with well-defined implications of the work and suggestions for future direction. The experimental chapters of the thesis were presented by a series of published journal papers. The thesis was novel and built upon the existing body of knowledge by better refining methods to determine the likely response of soils under irrigation scenarios.

Associate Professor Peter Kopittke was awarded the JK Taylor medal.

The JK Taylor Medal is for excellence in research and its communication. It recognises the most meritorious research publication. The paper "Nitrogen-rich microbial products provide new organo-mineral associators for the stabilization of soil organic matter." was published in *Global Change Biology*, a high impact journal, is a credit to the quality of the paper. Congratulations to Peter on a very well- deserved win.

Notes from the panel's report included glowing comments such as "I really enjoyed reading this paper and found it particularly fascinating. The discussion openly acknowledges the work of other researchers and then based on the present research undertaken, provides further rationale or hypothesis for the observations made. There is much complex detail in the paper, and it is a very comprehensive study." "The paper was well put together with robust methodologies and provides new insights into the formation of organo-mineral complexes."

## **Undergraduate Student Awards**

Each year the Branch recognises undergraduate awards for excellence in soil science. Queensland universities are asked to nominate their highest performing undergraduate in soil science. This award can be for a student with high performance in an honour's thesis, or for outstanding performance in soils related university courses/programs.

This year three undergraduate students have been recognised. They are Rowena McGeary from the University of Southern Queensland, Melissa Collins from James Cook University and Simon Cristaudo from Griffith University.

Rowena received a High Distinction for her honour's thesis "The Soil-Water Cost of Heavy Machinery Traffic on a Vertosol." This work utilised the soil water retention curve to evaluate the effects of heavy machinery traffic on soil water availability, with the intent of estimating the cost of uncontrolled traffic. Through her work, Rowena demonstrated that uncontrolled traffic of heavy machinery resulted in a conservative loss of 1 ML/ha of soil water. This equated to approximately

\$100M of productivity loss to the Australian cotton industry within a single average season. As well as Rowena's undergraduate award she was also awarded the best student presentation of the evening.

Melissa Collins from James Cook achieved the top marks in two soil courses being Soil Properties and Processes and Field Studies in Tropical Water and Soil Science in 2018. Melissa has produced consistently excellent work including laboratory reports, field work reports and exam results and is highly motivated towards soil science.

All four students received \$100 cash prize, \$75 CSIRO Publishing voucher, one year's membership and a certificate.

### **Postgraduate Student Award**

A postgraduate award for the best doctoral thesis concerning soils from a Queensland university supervised candidate is awarded annually. Two nominations were received for the post graduate award. Dr Iain Goodrick from James Cook University and Dr Orpheus Butler from Griffith University.

Iain's topic for his PhD thesis was "Soil carbon dynamics under oil palm plantations." Iain published three papers during his candidature and contributed to nine other papers relating to soil carbon cycling.

Orpheus' topic for his PhD thesis was "Stoichiometric patterns in the responses of organisms and ecosystems to fire." Orpheus has published five papers in high impact journals relating to this topic.

The Branch's judging panel (Rob Loch and Barry Stone) judged the postgraduate award this year. The panel observed that both theses represented excellent pieces of work on important topics that were well executed and clearly reported. The panel congratulated both candidates and their supervisors and colleagues for valuable new findings in soil science and identifying further research opportunities.

The 2018 Postgraduate Award has been awarded to Dr Iain Goodrick.

Congratulations to the award winners who have been recognised for excellence in soil science. Many thanks to Rob Loch and Barry Stone for their continued support in judging this award.

### **Soils Training**

QSSA held two soil basics refresher training courses since the last AGM, one in Bundaberg and one in Toowoomba.

17 people attended the course held at Bundaberg on 21st September 2018 and 15 people attended the Toowoomba course held on 1 November 2018. Feedback from the courses continues to be extremely positive with a range of attendants from agricultural enterprises, government, consultancies and universities.

Many thanks to Mark Sugars, Bernie Powell, Dennis Baker, Kristie Williams, Andrew Biggs, Mark Crawford, Maria Harris, Tony King, Sunny Jacobs and many others who helped support these events.

QSSA is planning for a Brisbane soil basics refresher course to be held in Brisbane in later September/early October and potentially a digital soils mapping course to be held in the new year.

### **Griffith University – QSSA Field Trip**

A group of 3rd year undergrad students from Griffith University with attendees from Soil Science Australia-QLD Branch were taken on a field trip to various areas of the Lockyer Valley to provide them with some practical experience to ensure a thorough understanding of their course work. These sites included the New Oakleigh Coal Mine Site, Gatton horticultural research station, UQ agricultural site, Darbalara salinity site, and Murphy’s Creek Road erosion site. The trip was led by Prof Chengrong Chen and Dr Maryam Esfandbod and sponsored by Rocky Point Ltd., Recycling Composting Industry.

All attendees, including SSA members and students were divided into six groups with each supervised by one or two of Soil Experts: Professor Chengrong Chen, Dr Mehran Rezaei Rashti, Mr Dan Brough, Mr Bernie Powell, Mr Peter Zund, Ms Lauren O’Brien, and Mr Scott Byrnes. The day ranged from specific talks by site experts at each site (Mr Clinton McGrath, Mr Brad O’Reilly, Mr Mark Bauer and Mr Peter Zund) to individual practical work, discussion and group practical work. The day finished with a simple competition that tested what the students learnt during the trip. Though all the students worked very hard, 6 students were chosen as the winners: (3 SSA hats and Bursary) Mr Reuben Delwijnen, Ms Anais Gibson-Davis, and Ms Emma Hunt, (3 SSA hats) Mr Russel Rose’Meyer, Ms Kate Kingston, and Ms Roxanne Ives.

### **National Soils Conference, November 2018**

The Qld Branch supported the following students/early career professionals to attend the National Soils Conference, with a maximum of \$1000 per applicant.

<b>Student</b>	<b>University</b>	<b>Research</b>
Yingcan Zhu	University of Southern Queensland	PhD research focuses on the investigation and quantification the controlling mechanisms of structural stability in magnesian soils,
Aram Ali	University of Southern Queensland	PhD candidate at University of Southern Queensland, in Centre for Sustainable Agricultural Systems. His research revolves mostly around the area of soils constraints, and soil structural stability.
Mohammad Bahadori	Griffith University	PhD as a member of the environmental biogeochemistry research lab (EBRL) at Griffith University since February 2016. His

		research interest is evaluating the impact of different biogeochemical cycles on the ecosystem of the Great Barrier Reef (GBR).
Xianyu Liu	Griffith University	My topic is to develop new soil health indicators from an ecological basis.
Stirling Roberton	University of Southern Queensland	PhD student at the University of Southern Queensland, Toowoomba, under the supervision of A/Prof John Bennett. His research focus is on the development and application of machine learning techniques in the field of soil science. Specifically, Stirling is applying these techniques to investigate and predict the spatial variance of soil properties for optimised agricultural production.

### **World Science Festival**

QSSA made a huge commitment to the World Science Festival in March this year expanding from one location (Southbank) to four (Townsville, Ipswich, Toowoomba and Southbank). In total 42 members supported this event across the four locations. Jim Payne has offered a very big thank you to all that attended, in particular, to the event coordinators, Neil Cupples (Townsville), Cameron Leckie (Ipswich), Kristie Williams and Aaditi Dang (Toowoomba) and Jim Payne (Southbank).

Large crowds attended with estimates of 1200 people at Toowoomba, 1000 people at Ipswich, 1000 people at Townsville and huge crowds at Southbank. Queensland Museum estimates that over 205,000 people attended events in Brisbane, it seemed like nearly every one of these people passed through the QSSA stall over the weekend.

### **Cairns 2020 conference**

QSSA will be hosting the next joint Australia and New Zealand soils conference which will be held in Cairns, Sunday 29th November to Friday 4th December 2020. John McLean Bennett will be the Chair of the organising committee and several positions have been filled with many more to be filled.

### **Online Presence**

The Queensland branch continued in its efforts to improve our online presence. Despite technical difficulties four out of five of our OGM's were made available online to skype into and we've made progress in improving the audio for those remotely situated. We have one of our OGM presentations loaded to the soil science Australia youtube channel and we're seeking post-production solutions to improve a further two OGM presentations for upload.

The Soil Science Australia webpage has continued its slow development despite the best efforts of the federal office. We've received assurances that the new membership payments system will be in place by November 2019 for membership renewals.

#### **Detailed List of Queensland Branch Activities (August 2018–August 2019)**

<b>Date</b>	<b>Event</b>	<b>Comments</b>
31-August-2018	AGM	Muller Bros - Toowoomba
21-September-2018	Soil Basics Refresher Training Course	Bundaberg - 17 participants
13-October-2018	65th Queensland Science Contest	Judged by Angus Mcelnea and Kate Dolan
01-November-2018	Soil Basics Refresher Training Course -	Toowoomba - 15 participants
08-August-2018	Griffith University - QSSA Field Trip	Lockyer Valley
20 - 22 November 2018	6th Australian Soil Judging Competition - Canberra 2018	USQ - equal third place
18 - 23 November 2018	National Conference	
05-December-2018	OGM 274	Presenter - Kylie Bradley
07-February-2019	OGM 275	Presenter - Aaditi Dang
09-March-2019	World Science Festival Townsville	1000 visitors
17-March-2019	World Science Festival Ipswich	1000 visitors
23-March-2019	World Science Festival Toowoomba	1200 visitors
23-24 March 19	World Science Festival Brisbane	Thousands of visitors
11-April-2019	OGM 276 Student Night	Rowena McGeary awarded best presenter
06-June-2019	OGM 277 (Regional - Toowoomba)	Presenter - Mark Silburn
22-August-2019	OGM 278	Presenter - Rebecca Bartley

#### **Acceptance of the annual report**

Cameron Leckie moved that the QSSA annual report be accepted. This was seconded by Col Ahern.

#### **6. Treasurer's Report**

Diane Allen provided an audited report of 2018-2019 financial year to the Branch. The balance at the end of 30 June 2019 was \$16,087.83. Most of the monies received reflected 'events' in particular the Brisbane, Townsville and Toowoomba refresher training courses (income carried over), with monies out including the final payment transfer from Branch to Federal for Art in Soil "Let's Get Dirty" event sponsorship, running costs related to the refresher training courses, world science festivals and student awards. Committed spend as at 29 August 2019 is approximately \$7290 (August 2018- Sept 2019) administration support, plus branch overhead costs for 2019-2020 (OGMs and awards) as agreed within by-laws.

Richard Swan advised that the audit undertaken for 2018-2019 will be his last and that it is time to retire from his position as auditor. Richard provided a letter which Diane read to branch members. Diane advised that Richard he has kindly offered to donate his time towards undertaking the 2018-

2019 audit, rather than invoice for his services. Diane suggested that the branch invite Richard to the first OGM of the new branch executive so that he can be thanked by the branch for his contribution. Richard also suggested in first instance to put the call out to branch members for suggestions for Certified Practising Accountants who may be able to undertake future audits for the branch.

Diane noted that she will no longer be undertaking role of treasurer – she thanked the branch for opportunity to participate and after 3 EOFY and audits, she believed it was time to capture and pass on learnings to next enthusiastic treasurer! The take-home messages for 2019-2020 for the branch to consider:

- Events – itemising of events with unique event ID will assist the branch with calculation of net monies in/out. Can we better harness systems (O365, Reckon, Memnet) to summarise work flow and cross-check
- Process for branch members and exec to track quickly what is committed, how it is tracking, and persons responsible – O365 has a platform to undertake this by exec committee
- Transition between authorised persons for approval of transactions, recommend at least three persons within the branch exec for authorising approved transactions

Diane moved the motion that *“persons confirmed in nominated roles of President, Vice-President and Treasurer be added as NAB bank signatories, removing current persons as nominated as signatories (Jim Payne, Diane Allen, Linda Bennison) to the Qld Branch NAB accounts”*. Seconded by John Standley, all in favour, motion carried.

**Australian Society of Soil Science Inc. – Queensland Branch  
Income & Expenditure Statement  
For the year ended 30 June 2019**

	2019	2018
	\$	\$
<b>INCOME</b>		
Annual General Meeting Receipts	4,498.20	
Ordinary General Meeting Receipts	1,223.57	912.80
Interest Received	16.66	133.43
Event Sponsorship		4,573.00
Event Income	6,644.40	9,574.60
Training and Workshops	20,130.18	
Other Income		220.00
<b>Total Income</b>	<b><u>\$32,513.01</u></b>	<b><u>\$15,413.83</u></b>
<b>EXPENSES</b>		
Accounting Fees		250.00
Administration Support	45.00	13,632.00
Advertising		529.29
Event Costs	1,807.85	35,677.63
Student Prizes	875.00	975.00
Gifts and Prizes	429.00	683.25
AGM Meeting Costs	7,155.00	5,790.99
OGM Catering and Venue	2,408.46	1,997.47
Publications		
Seminar/Workshop Expenses	3,130.28	4,108.22
Stationery/Postage		
Sponsorship Expenses	4,968.80	1,093.56
Training and Education		
Travel Expenses	543.22	533.41
Vehicle Expenses		
<b>Total Expenses</b>	<b><u>\$21,362.61</u></b>	<b><u>\$65,270.82</u></b>
<b>Surplus(Deficiency) from Ordinary Activities</b>	<b><u>\$11,150.40</u></b>	<b><u>(\$49,856.99)</u></b>

**Australian Society of Soil Science Inc. – Queensland Branch**  
**Statement of Financial Position**  
**As at 30 June 2019**

	2019	2018
	\$	\$
<b>ASSETS</b>		
<b>Current Assets</b>		
Cash at Bank	886.98	3,862.94
Cash Account	14,831.15	814.49
Meetings Float	369.70	260.00
<b>Total Current Assets</b>	<b><u>\$16,087.83</u></b>	<b><u>\$4,937.43</u></b>
<b>TOTAL ASSETS</b>	<b><u>\$16,087.83</u></b>	<b><u>\$4,937.43</u></b>
<b>NET ASSETS</b>	<b><u>\$16,087.83</u></b>	<b><u>\$4,937.43</u></b>
<b>MEMBERS' FUNDS</b>		
Opening Accumulated Funds	4,937.43	54,794.42
Surplus/Deficiency	11,150.40	-49,856.99
<b>TOTAL MEMBERS' FUNDS</b>	<b><u>\$16,087.83</u></b>	<b><u>\$4,937.43</u></b>

Mark Silburn moved that the Treasurer's Report was true and correct, seconded by John McLean Bennett.

## 7. General Business

Item	Description
7.1	QSSA - Griffith University joint field trip – 14 September 2019 Anyone interested in attending should contact Maryam Esfandbod for what will be an interesting day visiting sites in the Lockyer Valley.
7.2	Voting on Administrative Services Contract At the 260th OGM, the Branch voted to take to the AGM a motion that a paid administrative assistant position be installed for an annual contract to be renewed at subsequent AGMs - Caroline Bennison has done the job since then and the support she provides the Branch is invaluable and important - Jim moved a motion that: "The Queensland Branch of Soil Science Australia appoint an administrative assistant on an annual contract paid quarterly at three hours paid service per week at a rate of , to be reviewed annually." Howard Briggs indicated that this position is absolutely essential for the success of the Branch. The motion was seconded by Col Ahern. All members voted in favour.
7.3	Vote of Thanks. Aaditi Dang thanked the outgoing committee members on behalf of the Branch membership.
7.4	Election of 2019–2020 Office Bearers. The 2019-2020 Office Bearers were nominated:  President – Aaditi Dang

	<p>Vice President – Maryam Esfandbod  Immediate Past President – Jim Payne  Treasurer – Sunny Jacobs  Secretary – Cameron Leckie  Newsletter editor – Lauren O’Brien  Communications Assistant - Anne Schneider  Events Coordinator – Jason Choong  Assistant Events Coordinator – Yingcan Zhu</p> <p>John McLean Bennett moved a motion that: “All nominations as read out be accepted and we instate the new committee.” Seconded by Gillian Kopittke, none opposed, motion carried.</p> <p>Diane Allen moved that “All nominations as read out be accepted and we instate the new committee.” Seconded by John Standley, none opposed, motion carried.</p>
7.5	<p>Installation of the 2019–2020 President. At this point Jim Payne handed the figurative presidential banner over to Aaditi Dang as the 2019 – 2020 Queensland Branch President.</p>

### 8. AGM President’s Address

AGM presentation: Brisbane Airport’s New Parallel Runway Project – Overcoming challenges in soil science to deliver Australia’s largest aviation construction project.

Silvana Santomartino was President of the Queensland Branch of Soil Science Australia in 2017-2018 and was Secretary from 2011 to 2013. She is a Certified Professional Soil Scientist and has a PhD in Environmental Geochemistry from La Trobe University, Victoria. Silvana is a Founding Director of PSK Environmental. She has been involved in over 100 Acid Sulfate Soil investigations in Australia and South East Asia and has lectured in Acid and Metalliferous Drainage and Acid Sulfate Soils at Griffith University.

Silvana’s involvement in the New Parallel Runway project commenced in 2007, investigating and managing Acid Sulfate Soils within the project footprint. She was also the Project Manager for offshore investigations in Moreton Bay, assessing the quality of the sand within the source area for suitability as surcharge and structural fill.

The New Parallel Runway Project is the largest aviation construction project in Australia. Once completed, it will effectively double the current capacity of Brisbane Airport. 40 years from conception to delivery, and at a cost of 1.4 billion dollars, the project has involved the placement of 11 million cubic metres of dredge sand from Moreton Bay onto land to prepare the site for construction of the runway. Silvana will describe how the underlying soft soils, with consistency of toothpaste, posed geotechnical challenges and how this was overcome. Silvana will also describe the challenges with managing Acid Sulfate Soils on such a large project and the various management measures that were implemented to minimise the impact on the receiving environment. With the runway due to open next year, this talk will give regular flyers an insight, and therefore an appreciation, of the magnitude of works required to construct this key piece of Brisbane infrastructure.

### **9. 2018–2019 Plans**

The new President provided an overview of her intentions for the next 12 months including continued support to events that raise the Branch’s profile (and funds) and increase Branch membership.

### **10. Meeting closed**

Aaditi Dang closed the meeting at 9:31 pm.

**Aaditi Dang**

President

October 2019

**Cameron Leckie**

Secretary

October 2019