



# PROFESSIONAL INVOLVEMENT PORTFOLIO

DR SHELLEY EDWARDS

EVIDENCE OF PROFESSIONAL  
INVOLVEMENT 2015 - 2022



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2022



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## 1 INTRODUCTION

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Along with the three core responsibilities of academics at higher education (HE) institutes, namely Research, Teaching, and Community Engagement, academics benefit from being involved with institutional administration and being active in driving changes within the academic project. As such, being involved in committees and participating in activities that support the flow of research production (such as reviewing papers and grant applications) is important for the functioning of HE activities.

## 2 EXTERNAL EXAMINER FOR OTHER INSTITUTIONS

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### *Examination of academic courses:*

2022 - 2024:	<b>External Examiner:</b> 2x BSc (undergraduate) modules and 1x BSc (Hons) module (Univ. of Johannesburg- UJ)
2020 - 2022:	<b>External Examiner:</b> 1x BSc (undergraduate) module (Univ. of KwaZulu Natal - UKZN)
2017 - 2020:	<b>External Examiner:</b> 2x BSc (undergraduate) modules and 1x BSc (Hons) module (Univ. of Fort Hare - UFH)
2017 - 2019:	<b>External Examiner:</b> 1x BSc (undergraduate) module (UKZN)
2016:	<b>External Examiner:</b> 1x BSc (Hons) module (UKZN)

### *Examination of theses and dissertations:*

2022:	<b>External Examiner:</b> 1x MSc thesis (UJ)
2020:	<b>External Examiner:</b> 1x PhD dissertation (Univ. Free State – UFS)
2019:	<b>External Examiner:</b> 1x MSc thesis (UFS)
2017:	<b>External Examiner:</b> 1x MSc thesis (University of the Witwatersrand - WITS)
2016:	<b>External Examiner:</b> 1x MSc thesis (WITS)

I have been the external examiner of the semester courses in Zoology for the undergraduate (second and third year) and Honours levels at the University of Fort Hare (UFH), the University of KZN (UKZN) and most recently at the University of Johannesburg (UJ). It is always interesting to me to see what other universities are including in their curricula and being the external examiner for these various levels of Zoology courses have informed my own development of my curricula in my courses.

I was the external examiner for an Honours module on molecular biology communication for the University of Kwa-Zulu Natal (UKZN; 2016). This module not only teaches students molecular techniques, but also provides training in dissemination of science through print media, infographics, and popular articles. As the face of science changes, so too must our undergraduate and postgraduate training. This module addresses two main aspects: training in molecular biology techniques and training in science dissemination.

I recently became the external examiner for the third-year module for Evolutionary Development at the UKZN. This course teaches students about the genetic underpinning of development of animals and is truly a course that delves into the mechanics of life and how animals grow. I have been impressed with the content taught and the level that it is being taught at.

I am currently the external examiner for two third-year modules and one Honours modules for the University of Johannesburg. These courses cover a wide range of biological subjects, including conservation, development, and molecular biology.

I have also been the examiner of four Masters theses and one PhD dissertation. These excellent Masters theses included analyses that were far above the expectations of a Masters level and allowed me the opportunity to develop my own understanding of the standards that I can expect of my own students. The PhD dissertation was also of a good quality and really highlighted my own expectations of my own students.

### 3 REVIEWER FOR GRANT APPLICATIONS

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2020:	<b>Reviewer of Research grant:</b> 1x grant application for the National Research Foundation (NRF; South Africa)
2019:	<b>Reviewer of Research grant:</b> 1x grant application for the NRF (South Africa)
2018:	<b>Reviewer of Research grant:</b> 4x grant applications for the NRF (South Africa)
2016:	<b>Reviewer of Research grant:</b> 1x grant application for the National Science Foundation (NSF; USA)

In 2016, I was invited to review a submission for a research grant submitted to the National Science Foundation (NSF) of America. The proposed research project involved the investigation of 'head-first-burrowing' reptiles, and proposed to use morphological and performance analyses, in conjunction with phylogenetic analyses, to elucidate convergent evolutionary patterns. This kind of work has many applications, not only in furthering the knowledge of evolutionary drivers, but also in the production of knowledge regarding optimal head shape in burrowing animals – knowledge that can be used in the production of robots that can burrow in *e.g.* disaster sites after earthquakes, or *e.g.* burrowing on the surface of Mars.

The NRF receives a number of applications for funding research projects, and from 2018-2020, I have reviewed 7 projects that aimed to investigate a variety of different fields of research.

### 4 MENTORING STUDENTS FROM OTHER HE INSTITUTIONS

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2017: MSc student – Ms Ariella Rink (supervisor: Dr Jonathan Collville, SANBI, Cape Town)

I have mentored a Masters student in the techniques of geometric morphometrics, which has resulted in a scientific paper.

Rink A, Bowie R, Altweg R, **Edwards S**, Collville J. (2018) Intrasexual competition and sexual selection in combatant monkey beetles (Scarabaeidae: Hopliini). *Behavioural Ecology*. 30(3): 713-723.

2018: MSc student – Ms Faith Mashiywa (supervisor Dr Graeme Bradley, University of Fort Hare)

I have mentored a Masters student in the techniques of molecular analyses, which has resulted in a scientific paper.

Bradley G, **Edwards S**, Mashiywa FM. (2020) Assessment of the use of a new genetic barcode marker for the identification of red algae (Rhodophyta) species found along the South African coastline. *Journal of Applied Phycology*. Submitted.

## 5 MEMBERSHIPS AND COMMITTEE INVOLVEMENT

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### **Membership of Societies/Associations**

2016 - present	African Arachnological Society (AFRAS)
2013 - 2015	Linnean Society of London
2010 - present	Herpetological Association of Africa (HAA)
2010 - present	Golden Key Honour Society (Stellenbosch Univ.)
2008	Zoological Society of South Africa (ZSSA)

### **Societies/Associations activities**

Date	Institute
2019	Organising committee for the 1st Eastern Cape workshop on Ethics in Disaster Situations
2017 - 2019	Chair of Organising committee for HAA conference (2019)
2016 - 2019	Member of the Committee of the Herpetological Association of Africa
2016 - present	African Arachnological Society (AFRAS) member
2013 - 2015	Linnean Society of London member
2010 - present	Herpetological Association of Africa (HAA) member
2010 - present	Golden Key Honour Society (Stellenbosch Univ.)
2011	Student Representative (elected) (SANBI)
2008	Zoological Society of South Africa (ZSSA) member
2008	Lab student representative (elected) (Dpt Botany & Zoology, Stellenbosch Univ.)

I have been a member of the HAA since 2010, a committee member of the association for 2016-2019, an associate editor of the association's journal (the African Journal of Herpetology) since 2017, and Chair of the HAA conference organising committee (2017-2019). In 2016, I was voted in as a committee member of the Herpetological Association of Africa (HAA), a position in which I contribute to the administration of the association (by suggesting and voting on changes made to *e.g.* the journal associated with the HAA, the African Journal of Herpetology). In 2017, after the bi-annual HAA conference held in January 2017, I was proposed as the chair of the organising committee for the 2019 HAA conference. I was again voted to be part of the committee in late 2017 (during the 'change of the guard' committee reshuffle), and my role of chair of the HAA conference organisation committee was solidified. Whilst this conference could be considered small, with an estimated attendance of 150 delegates, the organisation of such an event was quite intricate and involved a number of moving parts, which is why the committee was comprised of all of the members of the HAA committee, to facilitate all of the various aspects of the conference. In 2019, the conference was held in Cape St Francis Bay, and it advertised the natural beauty of the seemingly undervalued Eastern Cape region.

I have also been on the organising committees for two other conferences; one in 2015 (Joint conference: XIX Congress of the Entomological Society of Southern Africa AND 37th Congress of the Zoological Society of Southern Africa) and in 2019 (1st Eastern Cape workshop on Ethics in Disaster Situations).

## 6 JUDGE FOR COMPETITIONS

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### 2007, 2019: Judge for Eskom Expo for Young Scientists

Each year, an expo is held for scholars around South Africa. Scholars submit a project that has a scientific basis (<https://exposcience.co.za/>), and the judges to assess the submission are drawn from university and museum staff around the country. I have participated twice as a judge, once in 2007 (as a Masters student) and once in 2019 (as a lecturer).



## 7 REVIEWING JOURNAL PAPERS

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Over the course of my career, I have reviewed 37 papers (excluding resubmissions) from 20 different journals (Table 1, Fig. 1), with 23 of those papers being reviewed in the time that I have been employed at Rhodes University (2015 – present). The subject matter of these papers differs quite widely, but mostly revolve around herpetofaunal species, and use phylogenetic, morphological, dietary, or functional analyses (or a combination of those) to investigate evolutionary aspects of their study species. This work is not remunerated – we as academics do this ‘job’ for free.

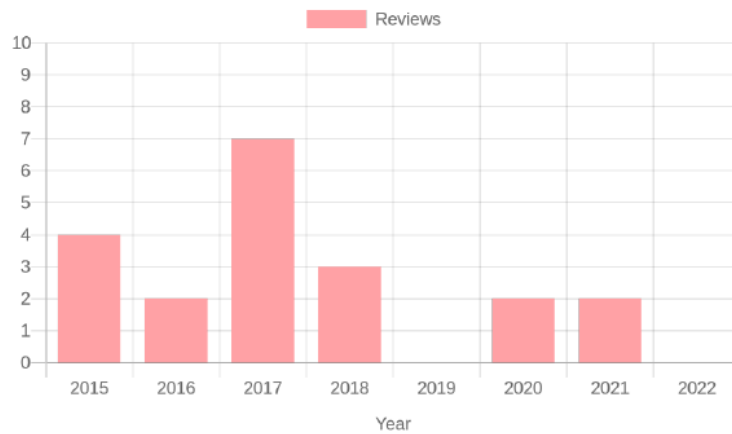
**Table 1:** List of journals for which I have reviewed papers (not including the resubmissions)

Journals	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Acta Oecologica				1							
African Herp News						2					
African Journal of Herpetology	1	1	1	2		1					
African Journal of Wildlife Research				2							
African Zoology										2	
Amphibia Reptilia							1		2		
Biological Journal of the Linnean Society	1					1	1				
Bothalia: African Biodiversity & Conservation			1								
The Herpetological Journal				1							
Indago							1				
Journal of Animal Ecology			1								
Journal of Biogeography				1	1						
Journal of Herpetology						1					
Journal of Morphology				1		1	1				
Organisms Diversity and Evolution			1								
PeerJ			1		1						
PLoS-One		1	1								
Salamandra	1										
Science of Nature						1					
South African Journal of Science			1								
<b>TOTAL</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>8</b>	<b>2</b>	<b>7</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>



## Verified reviews

### REVIEW SUMMARY



### REVIEWER SUMMARY

For manuscripts reviewed from date range January 2012 - February 2022

(3) Amphibia-Reptilia	WOS	(3) Journal of Morphology	WOS
(2) African Zoology	WOS	(2) The Science of Nature	WOS
(2) African Journal of Wildlife Research	WOS	(2) Journal of Biogeography	WOS
(2) Biological Journal of the Linnean Society	WOS	(2) African Journal of Herpetology	WOS
(1) PeerJ	WOS	(1) Journal of Herpetology	WOS

### 20 REVIEWS OF 18 MANUSCRIPTS

From date range January 2012 - February 2022

**Figure 1:** Publons report on reviewing papers

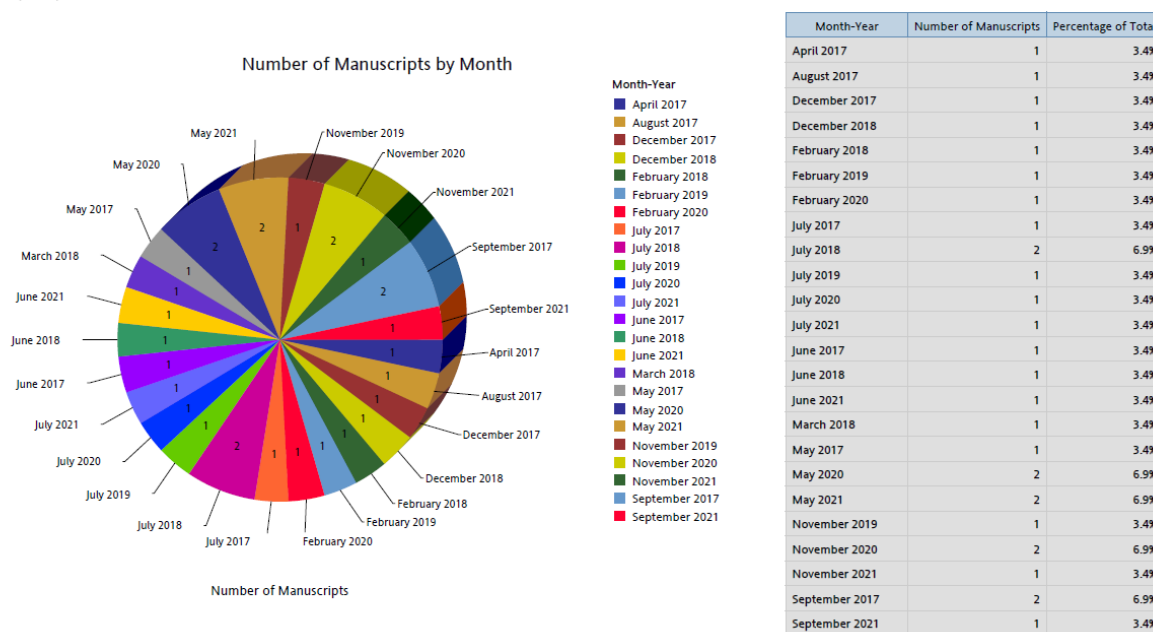
## 8 EDITOR OF JOURNAL

2016 – 2017: Associate Editor of Cogent Biology

2017 – present: Associate Editor of African Journal of Herpetology

Equally with the free labour of reviewing papers, most journals also ‘employ’ editors that send the articles for review and handle the review process, and ultimately decide on whether a paper is accepted for publication or not. For the most part, the editors of the journals are academics in the field covered by the journal, a job that is also not remunerated. I was invited to be an Associate Editor for the journal Cogent Biology in 2016 and facilitated the review of three papers over that year but was starting to become a bit snowed under with my other work and stepped down from the ‘job’ in early 2017. Around April of 2017, I was invited to be an Associate Editor of the African Journal of Herpetology (AJH), which I accepted. Although the workload was a little more than that of being editor of Cogent Biology, I felt that contributing to the journal associated with the association that I was a committee member of (the Herpetological Association of Africa) was a better use of my time. In the time that I have been Associate Editor of the AJH, I have facilitated and rendered decisions on 29 manuscript submissions (Fig. 2). The majority of the papers that I have managed had an evolutionary focus, most of which had either some taxonomic investigations or some phylogenetic investigations of species or genera.

Information based on all manuscripts whose submission date is On or after 1 Jan 2016 and decision date is On or after 1 Jan 2016  
 Grouped by: Month Of Submission



**Figure 2:** Report by the African Journal of Herpetology on my activities as Associate Editor (January 2017 to December 2021). Only manuscripts with a decision are included in the report; those still in the review process are not included.

## 9 GRAHAMSTOWN/MAKHANDA SCIENCE CAFÉ



Science Cafés, events held around the world, are informal presentations of the latest and greatest science that is currently being conducted. Members of the public can arrive, grab a beer or a coffee, and listen to lively talks or participate in general debates about cutting-edge science! In January 2018, inevitably over a cold beer, a group of newly appointed lecturers from Rhodes University (Fig. 3), myself included, were discussing how much we enjoyed learning about science out of our own fields, and how we are woefully not disseminating science to the general public in a meaningful way. The discussion wound eventually around to the planning and finally the establishment of the Grahamstown Science Café. Our first talk was in March 2018 on gravitational waves by Prof Denis Pollney (Figs. 4 and 5), with an astounding estimated 50 people in the audience! Our second talk by Prof Delia Haynes (Stellenbosch University) on chemical engineering was well received, with the third talk from Prof Mark Brigham (University of Regina, Canada) about bats being by far the most entertaining. Our plan was to invite speakers once a month to present a topical issue in science, not only broadening our own knowledge, but in an effort to break the ‘ivory tower’ perception of science at universities. We have registered on the Science Cafés website (<http://www.sciencecafes.org>), joining a community of cafés around the world in a bid to bring science to the general public. We have also created a Facebook page through which we provide some background material on the topic being presented and advertise the events. Of the six members on the organising committee (Fig. 3), I was the organiser of the distribution of flyers and posters, as well as advertising in print media, and occasional MC for the event. Now that the original committee has lost members mostly due to members resigning and moving to other institutions, I have taken on the role of Chair of the organising committee, alongside Dr Vincent Smith, and have recruited new committee members from the departments of Botany, Mathematics, Chemistry, and Physics.

With the covid-19 pandemic causing a national lockdown to occur in March 2020, the Science Café events have unfortunately been cancelled for the years 2020 and 2021, but hopefully we can start them up again in 2022, with even more exciting topics being discussed!



**Figure 3:** Organising committee of the Grahamstown Science Café (2018). From left to right: Dr Anslyn John (Mathematics), Dr Shelley Edwards (Zoology & Entomology), Prof Denis Pollney (Mathematics), Dr Tracey Nowell (Botany), Mr Dino Giovanoni (Physics), and Dr Vincent Smith (Chemistry).



**Figure 4:** A wonderful large audience turnout at our first Science Café talk on gravitational waves by Prof Denis Pollney.




**Figure 5:** Some presenters at the Grahamstown Science Café in 2018. Top left: Dino Giovanoni introducing speakers, top right: Prof Delia Haynes (Stellenbosch University) answering questions and bottom: Prof Denis Pollney describing the fundamentals of gravitational waves during his talk.

Figure 6: Posters for the Science Cafés that have been held in 2018:






**SCIENCE CAFÉ**  
GRAHAMSTOWN



**SNAKES & LADDERS:  
BUILDING TECHNOLOGIES  
BASED ON REPTILES**

**SPEAKER:** Dr Shelley Edwards  
**DATE:** Wednesday, 25 July 2018  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street

Find us on Facebook:  
Grahamstown Science Cafe



[www.sciencecafes.org](http://www.sciencecafes.org)



**SCIENCE CAFÉ**  
GRAHAMSTOWN

**A BRIEF HISTORY OF THE UNIVERSE:  
THE BIG BANG AND BEYOND**

**SPEAKER:** Dr Anslyn John  
**DATE:** Thursday, 27th September  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street



Find us on Facebook:  
Grahamstown Science Cafe



[www.sciencecafes.org](http://www.sciencecafes.org)



**SCIENCE CAFÉ**  
GRAHAMSTOWN

**PROUDLY BROUGHT TO YOU FROM MAKHANDA:  
FIRST FOOTSTEPS  
IN AFRICA**

**SPEAKER:** Dr Robert Gess  
**DATE:** Wed, 31st October  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street



Find us on Facebook:  
Grahamstown Science Cafe



[www.sciencecafes.org](http://www.sciencecafes.org)

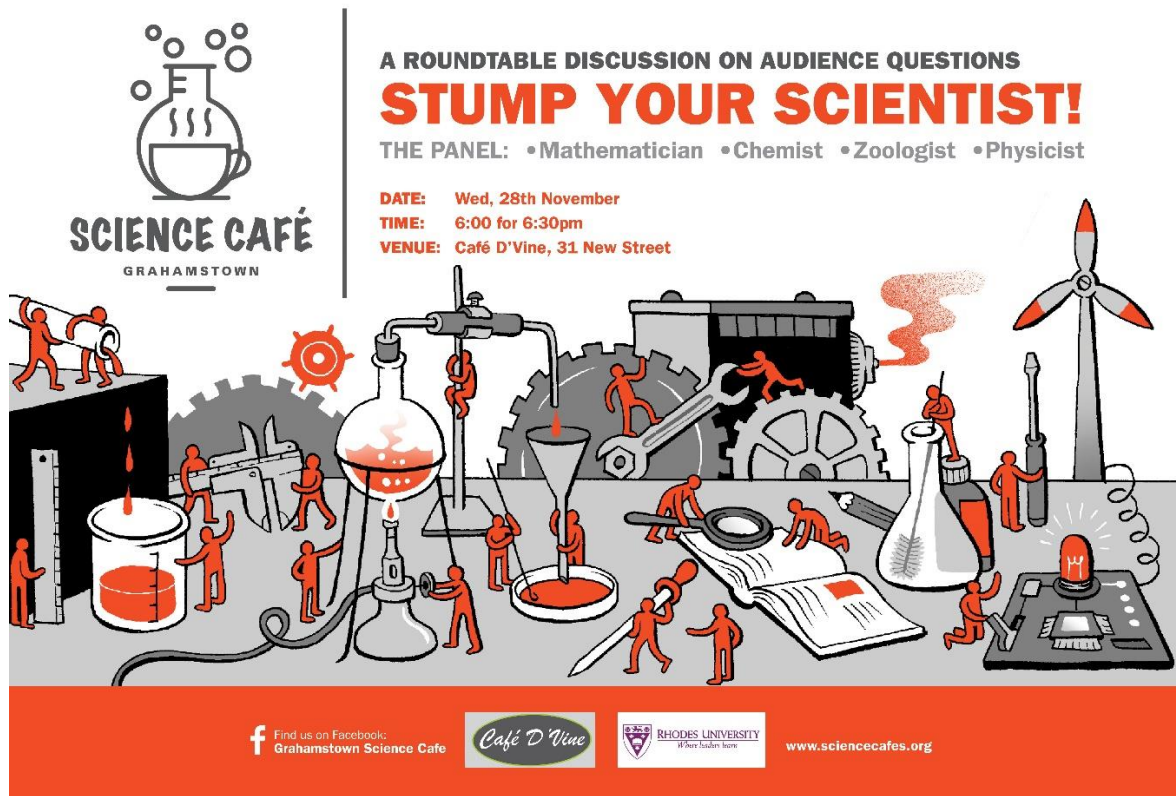
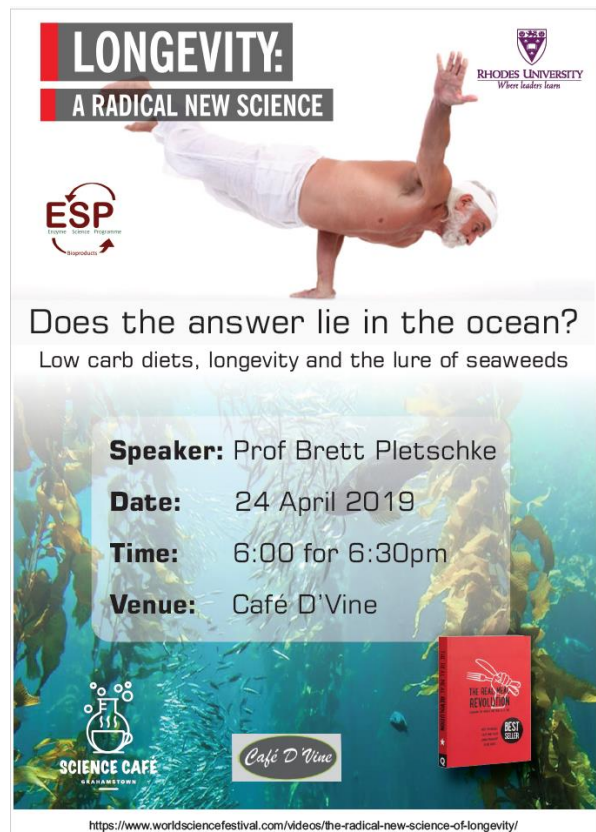
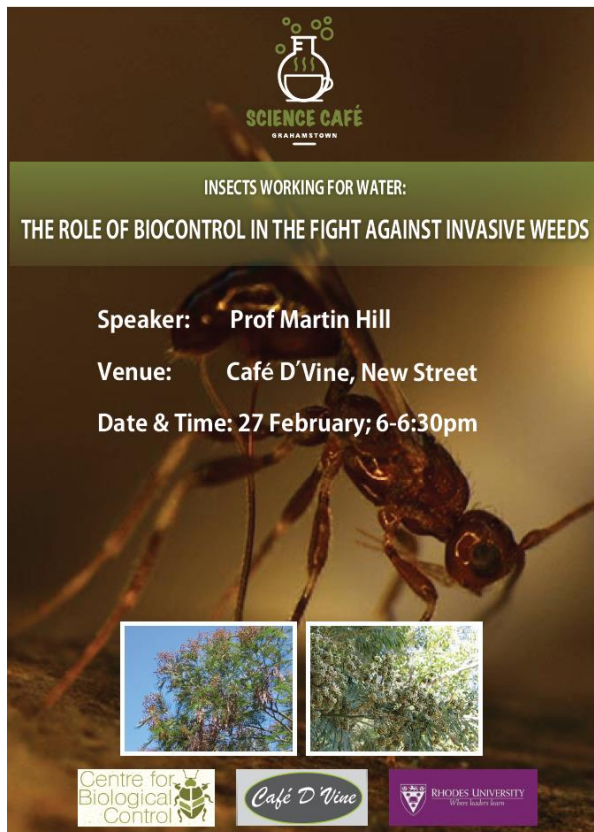





Figure 7: Posters for the Science Cafés that have been held in 2019:


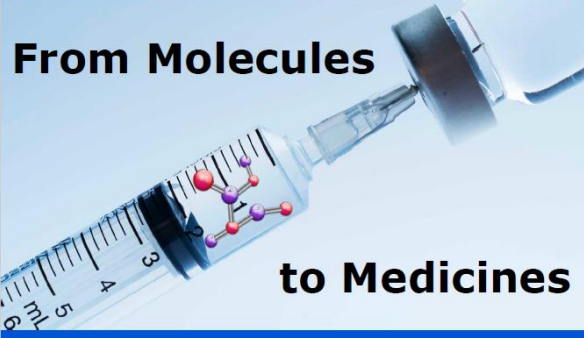


**CRITTERS IN THE CROSS HAIRS**  
**POACHING IN THE 21st CENTURY**

**SPEAKER:** Melumzi Matiwane  
**DATE:** Wednesday 29 May 2019  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street

Find us on Facebook: [Grahamstown Science Cafe](#)  
Café D'Vine  
RHODES UNIVERSITY  
[www.sciencecafes.org](http://www.sciencecafes.org)

**From Molecules**  
**to Medicines**

**THE SCIENCE BEHIND DESIGN & DEVELOPMENT**

**SPEAKER:** David Khanye, PhD  
**DATE:** Tuesday 27 August 2019  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street

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Café D'Vine  
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[www.sciencecafes.org](http://www.sciencecafes.org)


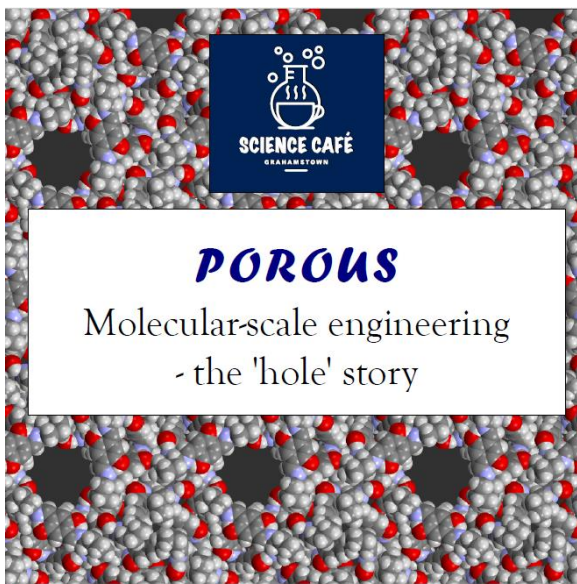
**FUTURISTIC CARS**



**THE FUTURE OF E-MOBILITY**

**SPEAKER:** Joost Kessels  
**DATE:** Wednesday 2 October 2019  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street

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Café D'Vine  
RHODES UNIVERSITY  
[www.sciencecafes.org](http://www.sciencecafes.org)

**POROUS**  
Molecular-scale engineering  
- the 'hole' story

**SPEAKER:** Len Barbour  
**DATE:** Wednesday 30 October 2019  
**TIME:** 6:00 for 6:30pm  
**VENUE:** Café D'Vine, 31 New Street

Find us on Facebook: [Grahamstown Science Cafe](#)  
Café D'Vine  
RHODES UNIVERSITY  
[www.sciencecafes.org](http://www.sciencecafes.org)





Figure 8: Posters for the Science Cafés that have been held in 2020:

