# **FORENSIC EXHIBIT.**

Shining a spotlight on the work of the Australia New Zealand forensic science community

### 2020 Year in Review



**Dr Linzi Wilson-Wilde OAM,** Director, ANZPAA NIFS

#### What a Year!

The year 2020 will be remembered as a challenging year that resulted in lasting change to the forensic and broader community. At ANZPAA NIFS we adapted and responded, along with our practitioner colleagues, to the new COVID-19 landscape.

All jurisdictions felt the global effects of the pandemic, with some jurisdictions bracing harder under strict lockdowns. We saw travel stopped and meetings moved to the virtual space. ANZFSS was postponed. In some jurisdictions work from home became the norm. 2020 is sadly the year we lost significant contributors to forensic science, including the previous Director NIFS, Prof Tony Raymond AM, who will forever be missed.

However, during these times, our strength as a community shone through. Sharing information and collaboration increased. We communicated more regularly and checked in on our interstate and overseas colleagues. Support was abundant.

#### We Achieved

During this turbulent time, ANZPAA NIFS delivered important work, including the final report for the Workflow Mapping – Fingerprint project, a revised National Familial Searching Policy, various COVID-19 briefings, a review of the John Harber Phillips Award processes and a Research and Innovation Roadmap 2020-2025. We also reviewed further disciplines in our Forensic Fundamentals project and moved offices to 311 Spencer Street, Melbourne.

A significant achievement for the community was the launch of the Engender Change Program. The Program was launched by ANZPAA NIFS on 26 October on behalf of ANZFEC, with the goal of transforming the diversity and inclusion culture in the forensic community through leadership. See https://www.anzpaa.org.au/forensicscience/engender-change for more information.

#### We Said Goodbye and Hello

At ANZPAA NIFS we said goodbye to Robert Morgan, who took up the role of Assistant Director Biology and Dr Kaye Ballantyne, who is now the Chief Scientist, both at the Victoria Police Forensic Service Department. We welcomed Hannah Jarman and Natalie Price to the ANZPAA NIFS team, who have both made a significant impact on the functioning of NIFS.

There were also changes to our governance group ANZFEC; we said goodbye to John Venditto, Michael Collins, Chris Pearman and Des Carroll and we welcomed Damian Powell and Helen Salouros.

#### Farewell

Lastly, I would like to say thank you to you all as this will be my last newsletter as Director NIFS. I will be stepping down from the role as of 15 January 2021. I was fortunate to join the NIFS team in November 2008 with Alastair Ross as Director. I have thoroughly enjoyed my time at NIFS; I have been positively challenged and constantly rewarded. I will sincerely miss the team and all our stakeholders who have supported me over the years. It is the support of our ANZFEC, SAG, TAG and PWG members that we are able to achieve so much for the forensic community. I am fortunate to be taking up the role of Director Forensic Science South Australia on 1 February 2021 and so I look forward to seeing many of you in my new position.

We wish you all a wonderful festive season and the NIFS Team looks forward to working with all our stakeholders in 2021.

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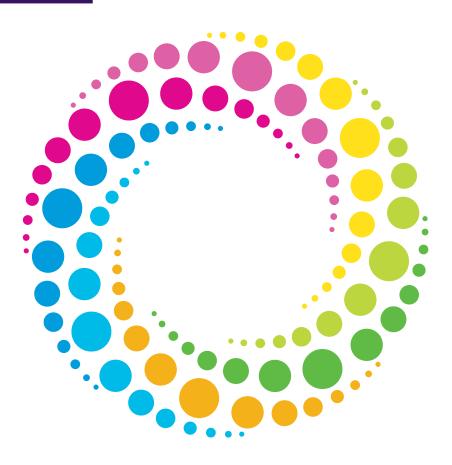
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Overview of upcoming national and international forensic science meetings and events.

Australia New Zealand Policing Advisory Agency



#### **Engender Change**



# ENGENDER CHANGE

# Transforming Culture Through Leadership

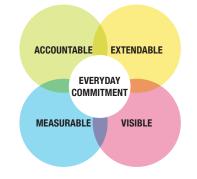
The Australia New Zealand Policing Advisory Agency's National Institute of Forensic Science (ANZPAA NIFS) launched Engender Change on behalf of the Australia New Zealand Forensic Executive Committee (ANZFEC) on 26 October 2020. The initiative aims to transform diversity and inclusion culture in the broader forensic community through leadership.

#### **Initial Focus – Gender**

The program's initial focus is on challenging and changing the everyday actions and language that contribute to gender issues and which do not foster a sense of inclusiveness. This is supported by the program's Everyday Commitment Statement which all individuals who opt to join the Engender Change program take.

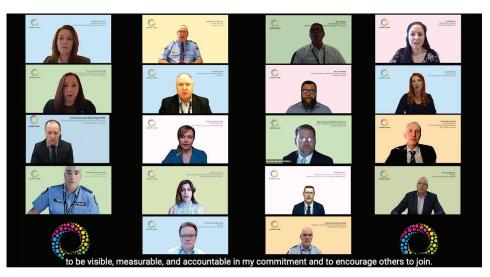
#### **Everyday Commitment Statement**

The Everyday Commitment is an accountable, expandable, measurable and visible representation of an Engender Change advocate's dedication to changing actions and attitudes toward women in the forensic community. Taking this commitment demonstrates a personal desire to lead meaningful action to achieve culture transformation.



# This is my Everyday Commitment Statement:

- I commit to ensure my actions and language are consistent with promoting diversity and inclusion in the forensic science community.
- I commit to be a role model for others and to leverage my influence in the broader community to promote diversity and inclusions ideals.
- I will actively champion the role of women in forensic leadership and increase the visibility of their contributions.
- I commit to use appropriate language and use my voice to question others when they do not.
- I commit to act to foster others and to promote an inclusive community.
- I commit to challenging gender stereotypes.
- I commit to act on language and behaviours that negatively impact on achieving and maintaining a diverse and inclusive forensic community.
- I will focus on the issues of diversity and inclusion, bring them front of mind for myself and others.
- I will be vigilant and will not accept excuses.
- I pledge to make my Everyday Commitment known, to be visible, measurable and accountable in my commitment and to encourage others to join.



ANZFEC Members making their Everyday Commitment Statement

#### **ANZFEC Member Commitment**

The first group of Engender Change advocates, consisting of 18 forensic leaders in Australia and New Zealand, have shown their commitment to actively champion women in forensic leadership, increase the visibility of women contributors to forensic science, be a role model for others and leverage their influence in the broader community to promote diversity and inclusion ideals

#### Join and Become an Advocate for Change

#### "Leadership is a trait that is not aligned to position or power."

Effective cultural change requires a collaborative community approach and strong, clear leadership. ANZFEC have taken a leadership step to begin to change forensic culture and address issues of diversity and inclusion. If you wish to follow their lead, and be part of creating transformative and accountable change within the forensic community, review the Everyday Commitment Statement



When the whole world is silent, even one voice becomes powerful.

https://www.anzpaa.org.au/forensic-science/engender-change/ everyday-commitment then contact

secretariat.nifs@anzpaa.org.au

Signing up to the Engender Change initiative is on a personal and voluntary basis.

#### Want to know more?

For more information on the Engender Change initiative and to view the video of ANZFEC members making their everyday commitment please visit

#### https://www.anzpaa.org.au/forensic-science/engender-change



Inspector Michelle Hepburn, Inspector Kylie Phillips, Supt Rashelle Conroy, Inspector Charles Agius, Inspector Andrew Brady

#### **Research and Innovation** Roadmap

We are very pleased to announce the release of the ANZPAA NIFS Research and Innovation Roadmap 2020-2025.

The purpose of the ANZPAA NIFS Research and Innovation Roadmap 2020-2025 is to promote the investment of funding and resources in research that is operationally relevant and of vital importance to forensic science service provision in Australia and New Zealand. The Roadmap is the result of extensive engagement with the forensic community and it represents an agreed position on the priority areas for research that best promote and facilitate excellence in forensic science. It defines research areas that are important to strengthening current forensic science processes and building future capability.



The Roadmap divides research into several areas: Forensic Fundamentals; Human Factors; Data Sets; New Tools; and Forensic Intelligence, Each research area is described in the Roadmap, which also includes a list of research topics. The alignment of the research areas to the ANZPAA Strategic Priorities is summarised in the figure below.

#### Why is research important?

Research plays an important role in discovering new ways for forensic science to better support the prevention, disruption, and resolution of crime. It can be applied to build new capabilities for combating evolving crimes such as terrorism and cybercrime. Advances in technology, such as Artificial Intelligence. present tremendous opportunities to add value, speed-up processes and augment forensic science decision-making.

Research is also essential to demonstrating expertise, so that the police, the Courts, and the broader community will have confidence in the ability of forensic science to deliver reliable results.

#### How does the Roadmap support research?

Funding and resources for forensic science research are limited. Therefore, the Roadmap provides a collective view of where this limited funding and resources can be applied to maximise return on investment. ANZPAA NIFS will use the Roadmap to direct investment in research that will benefit government forensic science agencies and partner agencies (including defence force) in Australia and New Zealand.

Academic institutions and forensic service providers can connect through the Roadmap, working together to undertake research, reduce duplication of effort and help drive research funding further. When applying for grants, researchers can use the Roadmap to demonstrate the relevance of the proposed research to government operational forensic science services in Australia and New Zealand.

Enquiries relating to the Roadmap can be directed to

secretariat.nifs@anzpaa.org.au

#### **Promoting Research in Forensic Science**

ANZPAA Strategic Priority	Research Area	
Address Risk $ ightarrow$	Forensic Fundamentals	Strengthening underpinning science
Enhancing Practice $\rightarrow$	- Human Factors Data Sets	Improving objectivity & practice Developing activity level reporting
Shaping Stronger Connections $ ightarrow$	<ul> <li>New Tools</li> <li>Forensic Intelligence</li> </ul>	Automating processes & creating new capabilities Using forensic data for broader purposes

The Big Move - 311 **Spencer Street, Melbourne** 

ANZPAA NIFS has officially moved! While we officially moved offices in early October, the NIFS team are still largely working from home. We are looking forward to properly settling into and enjoying our new workspace in the near future. ANZPAA NIFS mailing address:

ANZPAA NIFS VICTORIA POLICE CENTRE PO BOX 415 MELBOURNE VIC 3000

#### **ANZFSS** – An introduction from the incoming President

Professor James Curran, ANZFSS President



There are a few changes coming to ANZFSS in the near future. November 26 saw the Annual General Meeting of the Society, which was held, for the first time, in a not unusual COVID-19 affected format of a Zoom meeting. This of course is disappointing for the Society, but a necessary reality of the situation we find ourselves in. I mention the AGM however, not because meetings are inherently interesting, but because this is also the time for the election of the Executive.

This year the positions of Secretary, Treasurer, and Vice-President (Australia) were open. Traditionally, this has also been the time when the Society elects the President. However, as of last year ANZFSS voted to establish a President-Elect position to make the transition smoother. The first holder of that position is me, James Curran, and I will say a few words about myself in a moment, but it means that as of November 26 I have become the President of ANZFSS, and Professor Adrian Linacre has become the Immediate Past President, replacing Professor Claude Roux, who has held that role for the past four years. I would like to thank Adrian on behalf of

The Roadmap is available at:

https://www.anzpaa.org.au/forensic-science/our-work/projects/research-and-innovation-project

the Society, and on my own behalf, for the guidance and leadership that he has provided, and for the changes that he has affected during his two terms.

I would also like to thank Claude, who has made enormous contributions both to our society and to forensic science. The election saw the following changes: Melissa Airlie replaces outgoing Secretary Carolyne Bird, Natasha Mitchell was elected Treasurer and Alison Sears was re-elected VP Australia. I would like to give an enormous vote of thanks to Carolyne - she really has been the heart and soul of the Executive and kept us all on track. I'd like to welcome Melissa - you have big shoes to fill, and to welcome Nat and Ali back - you know what you're getting yourselves into. The Executive looks forward to working with Council and the Society in the New Year.

Who am I? I am an academic statistician, and until September, I was the President of the New Zealand Forensic Science Society (2016-2020). I have been more than capably replaced in that role by Rachel Nickerson who also assumes the role of VP (NZ) of ANZFSS. You might find it rather unusual to have a statistician leading a very large forensic science society. However, I can assure you that I am intimately linked to the profession and the discipline.

My overall interest in forensic science is the objective assessment of the weight of forensic evidence, primarily (and I hope I can't hear a collective groan) through the computation of likelihood ratio. I have a very broad range of forensic disciplines where I have worked and published. My initial work was in the interpretation of glass evidence, supervised by John Buckleton and Chris Triggs. I moved from glass into DNA towards the end of my PhD, and took a postdoc with Professor Bruce Weir, then at North Carolina State, where I gained a reasonable amount of experience in expert witness testimony.

In my glass work, I primarily worked with refractive index measurements, but I also solved a problem for elemental composition measurements. That has led to work in many evidence types: inkjet inks, paint, gunshot residue, greenstone (nephrite), electrical tapes, voice comparison, footwear, fibres, and fingerprints. My current research collaborations include projects on DNA, body fluids and mRNA, gunshot residue, firing pin impressions, and glass. I also work in the OSAC process and the American Academy of Forensic Sciences Consensus Body for DNA. I am a fellow of the Chartered Society of Forensic Sciences, the American Academy of Forensic Sciences, and the American Statistical Association.



#### IAFS 2023 – Three years to re-invent ourselves and deliver an even more memorable meeting!

**Distinguished Professor Claude Roux** *President, International Association of Forensic Sciences, University of Technology Sydney* 

As you will be aware, due to the circumstances surrounding coronavirus COVID-19, IAFS 2020 has been cancelled and replaced by IAFS 2023 to be held at the International Convention Centre, Sydney, Australia from 20 – 24 November 2023. We are confident in this decision to protect the health and safety of our speakers, delegates, sponsors and exhibitors and look forward to an even bigger and better IAFS 2023 in beautiful Sydney, Australia.

Since this announcement, we have been inundated with complimentary messages. Almost everyone, including our Discipline Convenors and sponsors, is keen to stay on board. Everyone wishes to be part of such a historical event. We are very grateful for this continued support and excitement.

The Organising Committee, in collaboration with the Advisory Committee, sponsors and stakeholders, has already re-set with the new timeline in mind. As frustrating as it may be after all this hard work, it also allows us to somewhat re-invent ourselves. We will use the next three years to plan an innovative, engaging and memorable event, that is sure to leave a lasting legacy for many years to come.

It is expected that we will retain many aspects of IAFS 2020 for IAFS 2023. The theme 'Where to from Here' will be even more relevant in what should hopefully be the post-COVID world. We will celebrate the recipients of the prominent 2020 awards (Douglas Lucas Medal, Adelaide Medal and IAFS Human Rights Award) along with the 2023 winners. The social program will be translated to 2023. However, the scientific program, including workshops, will essentially re-start from the beginning. There is no other choice if we want to be at the cutting-edge of the developments in our discipline.

The call for abstracts will open on 12 October 2022 with a deadline of 8 February 2023. Our Super Early Bird registration will open on 14 November 2022 with a deadline of 13 December 2022. It sounds a long way to go. However, as we all know, time flies!

We thank all our sponsors, exhibitors, speakers, delegates, suppliers and the Australian Government for their unwavering support.

We wish you a safe and healthy holiday period. We would also like to ask each of you to look after yourself and those around you so we can enjoy your company in Sydney for an even more memorable IAFS Meeting in November 2023.



The (in)famous #iafs2023 koalas checking out great places for the delegates to enjoy before or after the conference!



#### For any queries, please contact the IAFS 2023 Meeting Managers via: iafs2023@arinex.com.au. Our new website is up and running – www.iafs2023.com.au

Stay up-to-date with all the latest information by joining the IAFS mailing list.

www.facebook.com/IAFS2023/

twitter.com/iafs2023

#### 2020 Best Paper Award Winners



ANZPAA NIFS would like to congratulate the following recipients of the 2020 ANZPAA NIFS Best Paper Awards:

# Best Paper – Forensic Fundamentals (New category)

#### Winner

### Phola Ramos, Oliva Handt and Duncan Taylor.

Investigating the position and level of DNA transfer to undergarments during digital sexual assault.

#### Highly Commended Kevin Cheng, Jessica Skillman, Stephanie Hickey, Rebecca Just, Lilliana Moreno, Jo-Anne Bright, Hannah Kelly, Meng-Han Lin, James Curran and John Buckleton. Variability and additivity of read counts for

aSTRs in NGS DNA profiles.

#### Best Paper – Capability Enhancement and Innovation (New category)

#### Winner Duncan Taylor, Lydie Samie and Christophe Champod.

Using Bayesian networks to track DNA movement through complex transfer scenarios.

#### **Best Technical Article or Note**

#### Winner

Matthew Di Rago, Supranee Pantatan, Melynda Hargreaves, Katherine Wong, Dylan Mantinieks, Alex Kotsos, Linda Glowacki, Olaf Drummer and Dimitri Gerostamoulos.

High throughput detection of 327 drugs in blood by LC-MS-MS with automated data processing.

# Highly Commended Julianne Henry and Lenara Scandrett.

Assessment of the Yfiler® Plus PCR amplification kit for the detection of male DNA in semen-negative sexual assault cases.

#### Jessica Pandohee, Jeff Hughes, James Pearson and Oliver Jones.

Chemical fingerprinting of petrochemicals for arson investigations using two-dimensional gas chromatography flame ionisation detection and multivariate analysis.

#### **Best Literature Review**

#### Winner Eden Johnstone-Belford and Soren Blau.

A review of bomb pulse dating and its use in the investigation of unidentified human remains.

#### Highly Commended Bethany Forsythe, Lisa Melia and SallyAnn Harbison.

Methods for the analysis of mitochondrial DNA.

#### **Best Case Study**

#### Winner

### Jackie Wright, Michaela Kenneally, Kirstin Ross and Stewart Walker.

Environmental methamphetamine exposures and health effects in 25 case studies.

#### Highly Commended

#### C Johnson, C Stansfield, V Hassan, E Kolbe, H Partington, D Kappatos and R Somerville.

The phenomenon of para-Fluorophe nylpiperazine (pFPP) in combination with the synthetic cannabinoid AMB-FUBINACA in seized plant material in New Zealand.

# Best New Publisher in a Refereed Journal (New category)

#### Winner

Kevin Cheng, Jo-Anne Bright, Zane Kerr, Duncan Taylor, Anne Ciecko, James Curran and John Buckleton.

Examining the additivity of peak heights in forensic DNA profiles.

#### Peter Woodman, Caroline Spiranovic, Roberta Julian, Kaye Ballantyne and Sally Kelty.

The impact of chemical trace evidence on justice outcomes: exploring the additive value of forensic science disciplines.

#### The Henry Delaforce Award

#### Winner

**Cameron Forsyth.** Fingerprint identifications from explicit photographs lead to pedophile convictions.

Highly Commended Gerard Dutton A curious case of bogus toolmarks.

Visit http://www.anzpaa.org.au/ forensic-science/our-work/awards/ best-paper for further information about the awards.

# In brief:

#### AFSAB Overview



Australasian Forensic Science Assessment Body

#### AFSAB Enhancement Project – Fingerprint Practical Assessment

The Australasian Forensic Science Assessment Body (AFSAB) Enhancement project was established at the time of closing of the AFSAB Review Implementation project and is the next phase of improvements to the AFSAB framework.

The development of four new AFSAB Fingerprint Practical Assessments is a critical component of this project. With the first of these assessments recently developed, a request for validators was sent out to current AFSAB fingerprint experts with great response. The validation will be shared among Australia practitioners from all ANZFEC agencies with various levels of experience. Validation of the first assessment is currently underway will completion anticipated by the end of December 2020.

We would like to thank everyone who has put up their hand up to be part of the validation – your contribution and support is greatly appreciated.

# AFSAB Recertifications – 2020 and 2021

Due to work from home arrangements implemented in response to COVID-19, there has been a delay in the processing of AFSAB annual and five-yearly recertifications for 2020. We are working hard to finalise them all before the end of the year and will provide practitioners with notification of their recertification once completed. Please note that annual and five-yearly recertifications for 2021 are due on **1 January 2021** and should be submitted electronically to:

secretariat.nifs@anzpaa.org.au. Forms can be downloaded from the ANZPAA NIFS website (https://www. anzpaa.org.au/forensic-science/ resources/afsab). Obsolete forms will not be accepted.



#### Forensic Fundamentals

#### Overview

The aim of the Forensic Fundamentals project is to identify the underpinning science and validation requirements for forensic science disciplines. This project involves conducting a gap analysis for each forensic science discipline. These gap analyses will inform ongoing updates to the Research and Innovation Roadmap Annual Projects document.

#### **Claim Assessment & Gap Analysis**

Working groups map the claims made within their discipline, including claims surrounding underpinning principles and expert knowledge and interpretative ability. Literature is then assessed for each claim to determine the level of empirical support that exists (assessed in accordance with the Empirical Study Guideline available on the NIFS website (http://www.anzpaa.org. au/forensic-science/our-work/products/ publications). Drug, Audio Video and Toxicology (drug interpretation claims) working groups have been hard at work breaking down their respective disciplines into key claims and are now working on the literature search and assessment for these claims. Expert working groups for Clandestine Laboratory, Anthropology and Textile Damage have been formed and will begin to examine their disciplines in early 2021.

#### Forensic Standards Development

The following ISO TC272 standards are in development:

- ISO/CD 21043:3 Forensic Sciences Analysis
- ISO/CD 21043:4 Forensic Sciences Interpretation
- ISO/CD 21043:5 Forensic Sciences Reporting

TC272 meetings were moved to the virtual environment with the Committee meeting once per week, for three hours each meeting, commencing 29 July and running until 28 October 2020. The Committee resolved all of the country member comments and the updated versions have been sent back out to member countries for another round of commenting.

Standards Australia CH041 will meet virtually in January 2021 to discuss the standards and propose comments for Australia. Once comments from all country members have been received, CH041 will meet again before Easter to establish the Australian position on the comments. After Easter TC272 will embark on another round of virtual meetings over several weeks to resolve the country members comments.

# The Forensic Exhibit. Events Calendar

### 2021

### JANUARY

#### **DFRWS APAC 2021**

27 – 29 January 2021

Virtual event

https://dfrws.org/conferences/dfrws-apac-2021/

### MARCH

#### **DFRWS EU 2021**

29 March – 1 April 2021

Virtual event

https://dfrws.org/conferences/dfrws-eu-2021/

### APRIL

#### **FACTA 2021**

18 – 21 April 2021

Brisbane, Australia

http://facta2021.com.au/

### **SEPTEMBER**

32nd International Symposium on Human Identification (ISHI)

14 – 17 September 2021

Washington, DC

https://www.ishinews.com/

### OCTOBER

58th Annual The International Association of Forensic Toxicologists (TIAFT) Meeting

24 - 28 October 2021

Cape Town, South Africa

https://tiaft2021.co.za/

### 2022

### JUNE

9th European Academy of Forensic Science Conference (EAFS)

30 May – 3 June 2022 Stockholm, Sweden

https://www.eafs2022.eu/

### AUGUST

29th Congress of the International Society for Forensic Genetics (ISFG)

29 Aug - 02 Sept 2022

Washington, DC

http://www.isfg2021.org

### SEPTEMBER

25th Symposium of the Australian and New Zealand Forensic Science Society (ANZFSS)

11 – 15 September 2022

Brisbane, Australia

https://anzfss.org/

# 2023

**NOVEMBER** 

23rd Triennial Meeting of the International Association of Forensic Sciences (IAFS) in conjunction with the 26th Symposium of the Australian and New Zealand Forensic Science Society

20 - 24 November 2023

Sydney, Australia

https://iafs2023.com.au/

#IAFS2023

# The Forensic Exhibit. Next edition focus

# In the next issue:

- ANZPAA NIFS Projects Update
- More information for ANZFSS 2022

### **Acknowledgement of Country:**



ANZPAA acknowledges Aboriginal and Torres Strait Islanders are Australia's first peoples and the traditional owners and custodians of the land on which we work. ANZPAA is committed to fulfilling the principles of New Zealand's founding document The Treaty of Waitangi.

Central to the principles is a common understanding that all parties will relate and participate with each other in good faith with mutual respect, co-operation and trust.



#### Disclaimer

This newsletter is for general information purposes only. The views expressed in this newsletter are not necessarily those of ANZPAA NIFS. ANZPAA NIFS has taken all reasonable measures to ensure that the material contained in this newsletter is correct. However, ANZPAA NIFS gives no warranty and accepts no responsibility for the accuracy or the completeness of the material.

# More information:

#### **Newsletter contributions**

If you would like any further information on ANZPAA NIFS or would like to contribute to the next edition of *The Forensic Exhibit* please contact Hannah Jarman: hannah.jarman@anzpaa.org.au

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