

EDUCATION

Doctor of Philosophy (Plant Biology), Research School of Biology, The Australian National University, Canberra, 2011

Bachelor of Science (Honours), Research School of Biology, The Australian National University, Canberra, 2005
Awarded First Class Honours

Bachelor of Arts/Bachelor of Science, Monash University, Clayton, Victoria, 2004
Majoring in Philosophy, Biology and Psychology
Awarded the Peter Singer Award for Moral Philosophy (3rd year)

PROFESSIONAL EMPLOYMENT

University Tutor, (casual), School of Biological Sciences, Monash University, Melbourne (July – Dec 2016)

- *Running three-hour laboratory sessions for first year biology students*
- *Assignment and oral presentation marking*

Road Cycling Coach, self-employed, Canberra and Melbourne (Dec 2013 – Dec 2015)

- *Group coaching and provision of one-on-one training to individual athletes (both adults and juniors)*
- *Planning and running of Novice Programs: skills development to race level and race supervision*
- *Design and provision of coaching programs*
- *Design and running of skills development sessions, including basic bike handling and skills, road awareness, group riding, race scenarios, basic to advanced tactics and strategy*
- *Athlete monitoring: fatigue, stress, program adjustment, performance modelling, preparation for general and race day nutrition, warm ups, mental preparation, specificity, and event knowledge*
- *Junior Talent Development: Talent ID through ACT's Fastest and Fittest competition, introductory program for road and track, continuation of physical and skill development to race level, management of junior cohort*

Post-doctoral Fellow, Research School of Biology, The Australian National University, Canberra (Jun 2011 – Dec 2013)

- *Management, maintenance and determination of protocols for mass spectrometer*
- *Establishment of a process for bulk production of a metabolite (RuBP) required for Rubisco (the CO₂-fixing enzyme in plants) kinetic assays*
- *Refinement of a mass spectrometric technique for simultaneous measurement of Rubisco kinetics*

Club Coach, (casual), Vikings Cycling Club, Canberra (Jan 2007 – Dec 2013)

- *Planning and running of Novice Programs: design of registration system, budget preparation, management of licensing and insurance, on-bike coaching and running of information sessions*
- *Administration of Club Training Programs at three levels: Women's Development, Open Development and Open Race*
- *Coach for the Valkyrie Vikings Women's Cycling Team: Creating and monitoring effective and interesting training programs for novice female racing cyclists of a range of ages, including running of skills development sessions in the lead up to major races*
- *Coach for the V-Mobile Cycling Team: Creating and monitoring effective and interesting training programs, organising and conducting group bicycle skill/tactics sessions, applying for team sponsorship and liaising with sponsors*

Assistant to the Organising Committee, (casual), Australian Centre for International Agricultural Research (ACIAR) Workshop on Applying Photosynthesis Research to Improvement of Food Crops, Canberra (Jul 2009 – Feb 2010)

- *Workshop organisation: communicating with attendees, organising timetables, venue, presentation equipment, sound recording, and food*

- *Compilation of commissioned reports into a document to be presented at the meeting, and summarising conclusions between sessions*
- *Overseeing review and revision of reports post-workshop and their compilation for publication*

University Tutor, (casual), School of Botany and Zoology, The Australian National University, Canberra (Feb – Jun 2007)

- *Running of two-hour tutorials for third year undergraduates based on research paper discussion, including directing and encouraging discussion*
- *Student assessment*

Research Assistant, (casual), Molecular Plant Physiology Group, Research School of Biological Science, The Australian National University, Canberra (Jul – Dec 2006)

- *Laboratory technical assistant: maintaining laboratory cleanliness, and ensuring compliance with PCII requirements*

Customer Integration Representative, Origin Energy, Melbourne (Mar – May 2004)

- *Resolving of errors that had arisen in the customer accounts database: problem solving, communication, the use of business and database applications, and applying an understanding of the deregulated energy market*

Summer Scholar, Research School of Biological Sciences, The Australian National University (Dec 2003 – Feb 2004)

- *Conducting a semi-independent research project investigating artefacts in a common measure of photosynthesis*

ANIMAL AND SOCIAL WELFARE INVOLVEMENT

Volunteer, Animals Australia, stalls, outreach, assisting with administration tasks (current)

Volunteer, SHaRM Foundation, sorting and packing donated school uniforms for shipment to schools in Vanuatu (current)

Volunteer, Coalition Against Duck Shooting, attended duck shooting opening weekend as a rescuer at Lake Burrumbeet, argued with people on the internet (Mar 2016)

Cycling Disability Coach, coaching riders with various disabilities both intellectual and physical, involving on-road coaching and general social support (2014-2015)

Rescue Foster Dog Carer, ACT Rescue and Foster, involving in-house care and training of rescued dogs, advertising and interviewing potential families for adoption (2012-2013)

Volunteer, Domestic Animal Services ACT, Exercising impounded dogs through either on-lead walks or playing in the yard (2011-2012)

Cycling Education Course for ANUgreen “Go Green Get Lean” program skills coaching, the program aimed to assist sedentary individuals to become more active and healthy through cycling (Sep 2007)

Volunteer Peer Educator, South-East Centre Against Sexual Assault, secondary school visits to discuss issues relating to gender, sex, violence and drugs with teenage boys (2004)

ENVIRONMENTAL VOLUNTEERING

Frog Monitoring, involving monthly monitoring of native frogs as part of Frogwatch with the Ginninderra Catchment Group, Canberra (Spring 2014 & 2008)

Volunteer Botanical Intern, Australian National Herbarium: an 8-week full-time training program in herbarium management and plant collection techniques (Jan-Feb 2003)

Native plant nursery seed germination and seedling propagation, providing weekly to monthly assistance at the Bayside Council Community Nursery, Cheltenham, Victoria (2003-2004)

Penguin Surveying, St Kilda breakwater, Melbourne, involving monthly evening trapping/handling and recording of Fairy Penguins, run by EarthCare St Kilda (2001-2002)

AWARDS AND RECOGNITIONS

Community

Life Member, Vikings Cycling Club ACT (2013)
ACT Cycling Federation Volunteer Coach of the Year (2013)
Vikings Cycling Club ACT Club Captain (2008-09)
Cycling Australia Volunteer of the Year (ACT) (2008)
Vikings Cycling Club: Club Person of the Year (2007)
ACT Cycling Federation Volunteer Coach of the Year (2006)
ACT Cycling Federation Volunteer of the year (2006)

Academic

Australian Post-Graduate Award (2007-10)
Research School of Biological Sciences PhD Top Up Scholarship, The Australian National University (2007-09)
Research School of Biological Sciences Honours top up scholarship, The Australian National University (2005-06)
The Australian National University Honours Scholarship (2005-06)
Research School of Biological Sciences Summer Scholarship, The Australian National University (2004-05)
Peter Singer Award for Moral Philosophy, Monash University (2004-05)

MEMBERSHIPS

Animals Australia, Field Naturalists Club of Victoria, Hampton Sailing Club, Animal Liberation Victoria

COMMUNITY INVOLVEMENT

Founding Vikings Cycling Club Novice Officer (2006-08)
Vikings Cycling Club V-Mail and Novice Bulletin editor (2006-08)
Vikings Cycling Club Captain (2008-09)
Journal referee for Plant, Cell and Environment (2007-11)

CERTIFICATIONS

- Senior 1st Aid (including CPR)
- Working with Vulnerable People General Registration (ACT)
- Cycling Australia (NCAS) Level One Coach
- Cycling Australia (NCAS) Skill Cycle Coach
- Victorian Driver's Licence

PUBLICATIONS AND CONFERENCE PRESENTATIONS

Jia H, **Dwyer SA**, Fan DY, Han Y, Badger MR, von Caemmerer S & Chow WS (2014) A novel P700 redox kinetics probe for rapid, non-intrusive and whole-tissue determination of photosystem II functionality, and the stoichiometry of the two photosystems *in vivo*. *Physiologia Plantarum* 152, 403-413.

Dwyer, SA, von Caemmerer, S, Evans, J, Yamori, W, Chow, WS, Kaines, S & Badger, M (2013) Antisense reductions in the PsbO protein of photosystem II leads to decreased quantum yield but similar maximal photosynthetic rates. *Journal of Experimental Botany* 63, 4781-4795.

Gready, JE, **Dwyer, SA** & Evans JR eds. (2013) *Applying Photosynthesis Research to Improvement of Food Crops*. Australian Centre for International Agricultural Research, Canberra.

Dwyer, SA (2011) *Photosynthetic Consequences of Impaired Photosystem II: Antisense Reductions in the PsbO Proteins in Arabidopsis thaliana*. PhD thesis, The Australian National University, Canberra, Australia.

Dwyer, SA, von Caemmerer, S, Evans, J, Chow, WS, Kaines, S & Badger, M (2010) Reducing Photosystem II: Anti-sense reductions of the PsbO protein in *A. thaliana*. Poster presented at the 15th International Congress on Photosynthesis, Beijing, China.

Dwyer, SA, von Caemmerer, S, Evans, J, Chow, WS, Kaines, S & Badger, M (2009) Reducing Photosystem II function: Physiological effects of anti-sense reductions of the PsbO protein in *Arabidopsis thaliana*. Poster presented at ComBio Satellite Conference: Plant Energy and Water Productivity from genes to environment, Canberra, Australia.

Dwyer, SA, Ghannoum, O, Nicotra, AB & von Caemmerer, S (2007) High temperature acclimation of C₄ photosynthesis is linked to changes in photosynthetic biochemistry. *Plant, Cell and Environment* 30, 53-66.

Kubasek, J, Setlik, J, **Dwyer, S** & Santrucek, J (2007) Light and growth temperature alter carbon isotope discrimination and estimated bundle sheath leakiness in C₄ grasses and dicots. *Photosynthesis Research* 91, 47-58.

Dwyer, SA (2005) *Acclimation of C₄ Photosynthesis to high temperature*. Honours thesis, The Australian National University, Canberra, Australia.

Dwyer, SA, Ghannoum, O, Chow, WS & von Caemmerer, S (2005) Acclimation of C₄ photosynthesis to high temperature: A reduction in photosynthetic capacity. Poster presented at Gordon Research Conference CO₂ Assimilation In Plants: Genome To Biome, Aussois, France.

REFEREES

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