

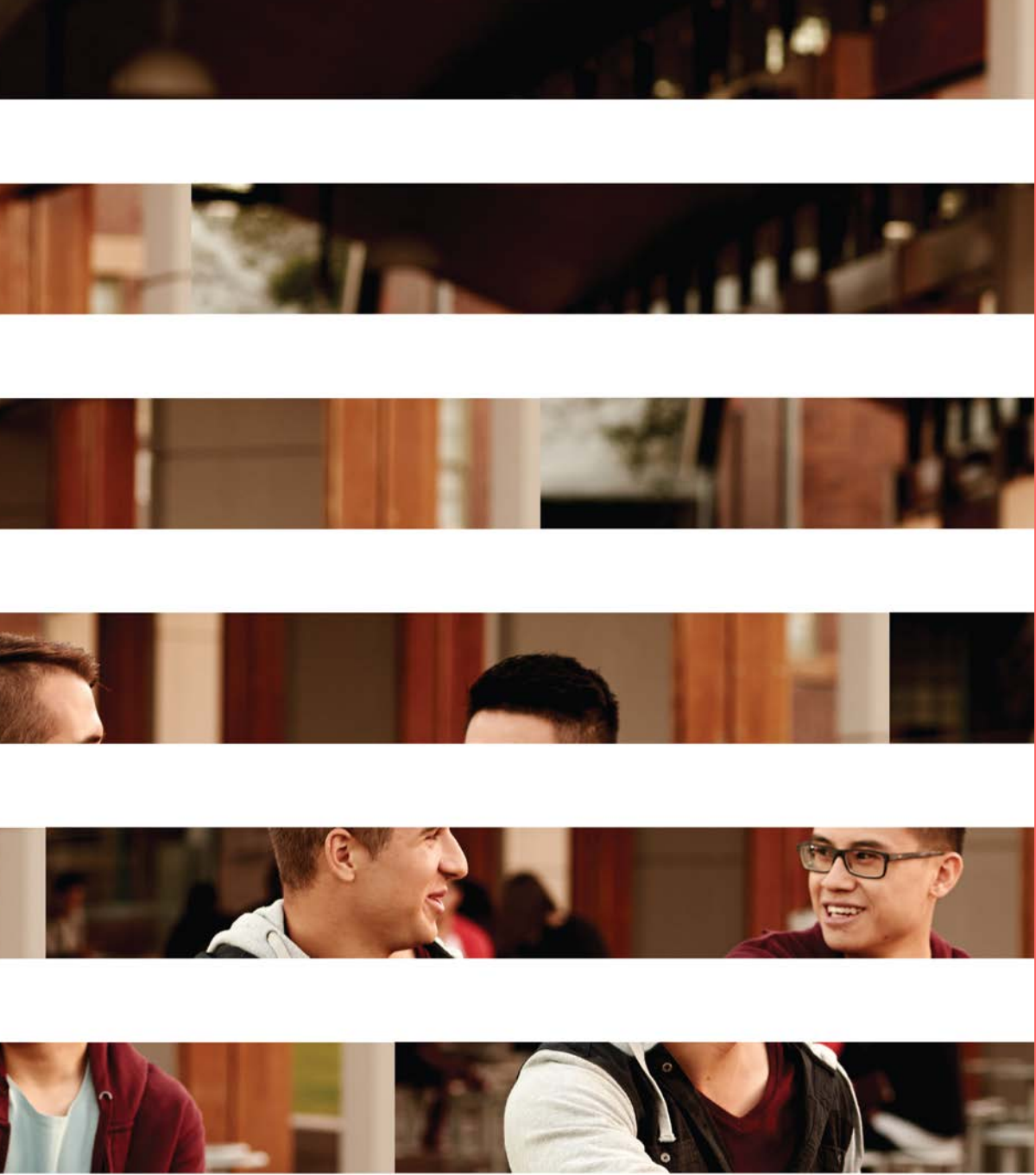
WESTERN SYDNEY
UNIVERSITY



Professor Deborah Sweeney
PRO VICE-CHANCELLOR, Research and Innovation

A presentation to AAUN

5th September 2016



Top 3%
IN THE WORLD

160
NATIONALITIES

45,000
STUDENT NUMBERS WILL SOON
EXCEED 50,000

4,500
INTERNATIONAL STUDENTS FROM
130 COUNTRIES

8
CAMPUSES

10
SCHOOLS

Greater Western Sydney

Population	Government	Government	Area
2.02 million (June 2011)	14 local government areas	Third largest in Australia	9000 square kilometers
Over 100 nationalities	23 state government electorates	Economic output \$95.6 billion	Sydney Olympic Park to Blue Mountains
	7 federal electorates	161,000 businesses (2011)	Unique flora fauna environment



Structure and Schools Western Sydney University

The College

Academic Pathways
English Language Programs

Ten Schools

- Business
- Computing, Engineering and Mathematics
- Education
- Humanities and Communication Arts
- Law
- Medicine
- Nursing and Midwifery
- Science and Health
- Social Sciences and Psychology
- Graduate Research School

The Whitlam Institute

Five Research Institutes

4 Research Themes

Health and Wellbeing; Environmental Sustainability

Education and Aspirational Change; Urban Living and Society

5 Research Institutes



MARCS
Institute
For Brain,
Behaviour
and
Development



Hawkesbury
Institute for
the
Environment



Institute for
Culture and
Society



Translational
Health
Research
Institute



Australia
China
Institute for
Art and
Culture

PARTNER INSTITUTIONS

- Over 180 international existing partners in 40 countries
- Collaborative agreements
- Exchange – students and staff
- Academic cooperation
- Guaranteed admissions and articulation
- Joint research initiatives



Fungal Farmers in Australian Trees

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Hawkesbury Institute
for the Environment

Diagnostics & Species discovery

Characterisation of Australian ambrosia beetles and their fungal associates

Development of tools for the identification of the native beetle fauna

Managing risks & novel biosecurity threats

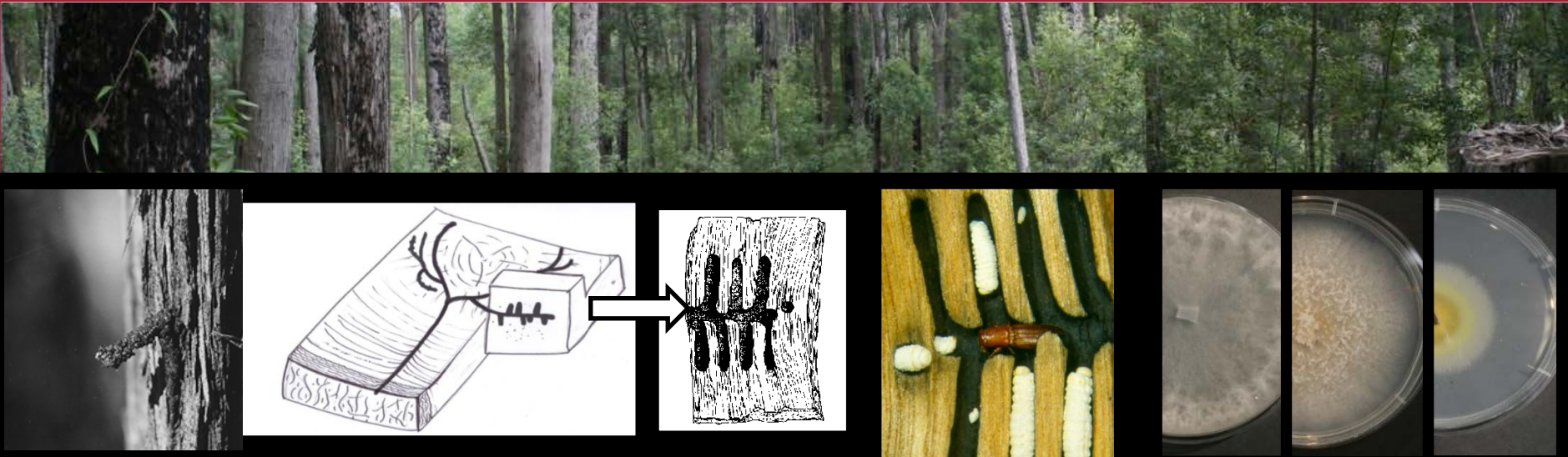
Inventory and taxonomic revision of Australian native ambrosia beetle fauna

Identification of critical pests and potential threats to natural resources and commercial interests



Team

Riegler, Smith (**HIE-Western Sydney**); Deborah Kent (retired expert from **NSW DPI**); Mike Wingfield (**University of Pretoria**); Jiri Hulcr (**University of Florida**); Christian Stauffer (**BOKU-Vienna**)



Fruit Fly Biosecurity Innovation

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UNIVERSITY



Hawkesbury Institute
for the Environment

ARC Industrial Transformation Training Centre

Research into fruit fly ecology, behaviour and physiology

Development of diagnostics

Novel and environmentally friendly management strategies



Australian Government

Australian Research Council

Team

Phil Taylor et al. (**Macquarie University**), Tony Clarke et al. (**Queensland University of Technology**), Markus Riegler et al. (**HIE-Western Sydney**), industry partners (**CSIRO, NSW DPI, QDAF, Ecogrow**)



Queensland fruit fly

Australia's most significant pest
insect

Diverse flies in a
complex landscape

Behaviour based
control

Novel microbial
control



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Pollination Biology Research

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Horticulture
Innovation
Australia

Role of native bees in pollination

Floral resources diversity

Impact of climate change on pollinators and pollination

Bee health, parasites and diseases

Team:

James Cook et al. (**HIE-Western Sydney**), Partners (**Syngenta, Croplife, Bayer, Greening Australia, AICRP and Indian research organisations**).



Greenhouse Research, Education and Training Facility

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Hawkesbury Institute
for the Environment

The cutting edge design and technology (Wagen ingen UR, The Netherlands)
1,728 sqm facility– 48 m by 36 m

Control of temperature, humidity, CO₂ and light

Test multiple conditions affecting the growth of plants, while at the same time lowering energy and water use

Collaborations with the protected cropping industry: *tomatoes, capsicum, eggplant, lettuce, strawberry and cut flowers.*

Horticulture
Innovation
Australia



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