

ECOS

Number 10

November 1976

Getting to grips with regional planning	3
Helping the metal extractors save energy	13
Beautifying Melbourne's western edge	17
Outlook—If the sun on longer shone . . .	21
Spectrum—Kosciusko's alpine flora—Insects against water hyacinth—The 'colour' of pollution	24
Termites turn the nutrient cycle	27
Back box—Charging the atmospheric heat engine	32

Ecos describes CSIRO research findings of relevance to our environment. Related findings by other bodies are included where necessary to give perspective to CSIRO work.

Stories are based on reports, published research papers, and information obtained by interviewing scientists.

Technical inquiries should be sent to the CSIRO Divisions concerned. All other correspondence should be addressed to: Senior Writer, *Ecos*, P.O. Box 225, Dickson, A.C.T. 2602.

Subscriptions to *Ecos*: \$4.00 a year for four copies, post-free. Cheques should be sent to CSIRO Editorial and Publications Service, P.O. Box 89, East Melbourne, Vic., 3002. Organizations with environmental interests may apply to be placed on our free mailing list.

The two quarterlies *Ecos* and *Rural Research* and the bi-monthly *Industrial Research News* are produced by a writing group in CSIRO's Science Branch at Head Office.

Writing group: Brian Woodruff (senior writer), Andrew Bell, Kay Hindmarsh, Brian Lee, Robert Lehane, and James Lumbers.

Editorial assistance: Yvonne Roberts.

Designer: John Wedlick

Credits: Australian Information Office, Jack Cavanagh, John Green, Moruya Historical Society, the Rex Nan Kivell and Tilba Tilba collections of the National Library of Australia, Colin Totterdell, and David Whillas. Other pictures came from the scientists and organizations mentioned in the stories.

Around CSIRO's Divisions

Agro-industrial Research Unit
P.O. Box 1666, Canberra City,
A.C.T. 2601.
46 4911

Animal Health
Private Bag No. 1, Parkville, Vic. 3052.
Melbourne 347 2311

Animal Production
P.O. Box 239, Blacktown, N.S.W. 2148.
Sydney 631 8022

Applied Geomechanics
P.O. Box 54, Mt Waverley, Vic. 3149
Melbourne 232 6111

Applied Organic Chemistry
P.O. Box 4331, Melbourne, Vic. 3001.
64 0251

Atmospheric Physics
P.O. Box 77, Mordialloc, Vic. 3195.
Melbourne 90 6333

**Australian Numerical Meteorology
Research Centre**
P.O. Box 5089AA, Melbourne, Vic. 3000.
662 2900

Building Research
P.O. Box 56, Highett, Vic. 3190.
Melbourne 95 0333

Chemical Engineering
P.O. Box 312, Clayton, Vic. 3168.
Melbourne 544 0111

Chemical Physics
P.O. Box 160, Clayton, Vic. 3168.
Melbourne 544 0633

Chemical Technology
P.O. Box 310, South Melbourne,
Vic. 3205.
Melbourne 69 7661

Cloud Physics
P.O. Box 134, Epping, N.S.W. 2121.
Sydney 869 1111

Computing Research
P.O. Box 1800, Canberra City,
A.C.T. 2601.
46 4911

Entomology
P.O. Box 1700, Canberra City,
A.C.T. 2601.
46 4911

Environmental Mechanics
P.O. Box 821, Canberra City,
A.C.T. 2601.
46 4911

Fisheries and Oceanography
P.O. Box 21, Cronulla, N.S.W. 2230.
Sydney 523 6222

Food Research
P.O. Box 52, North Ryde, N.S.W. 2113.
Sydney 888 1333

Forest Research
P.O. Box 4008, Canberra, A.C.T. 2600
81 8211

Horticultural Research
Box 350, G.P.O., Adelaide, S.A. 5001.
79 3605

Human Nutrition
Kintore Avenue, Adelaide, S.A. 5000.
223 5511

Irrigation Research
Private Bag, Griffith, N.S.W. 2680.
62 1700

Land Resources Management
Private Bag, Post Office, Wembley,
W.A. 6014.
Perth 87 4233

Land Use Research
P.O. Box 1666, Canberra City,
A.C.T. 2601.
46 4911

Marine Biochemistry Unit
Building A12, University of Sydney,
Sydney, N.S.W. 2006.
660 7506

Mathematics and Statistics
P.O. Box 1965, Canberra City,
A.C.T. 2601.
82 2011

Mechanical Engineering
P.O. Box 26, Highett, Vic. 3190.
Melbourne 95 0333

Mineral Chemistry
P.O. Box 124, Port Melbourne,
Vic. 3207.
Melbourne 647 0211.

Mineral Physics
P.O. Box 136, North Ryde,
N.S.W. 2113.
Sydney 888 1666

Mineralogy
CSIRO Private Bag, Wembley,
W.A. 6014.
Perth 87 4233

**Molecular and Cellular
Biology Unit**
P.O. Box 90, Epping, N.S.W. 2121.
Sydney 88 0221

National Measurement Laboratory
University Grounds, City Road,
Chippendale, N.S.W. 2008.
Sydney 660 0566

Plant Industry
P.O. Box 1600, Canberra City,
A.C.T. 2601.
46 4911

Process Technology
P.O. Box 136, North Ryde, N.S.W. 2113.
Sydney 888 1666

Protein Chemistry
343 Royal Parade, Parkville, Vic. 3052.
Melbourne 347 5211

Radiophysics
P.O. Box 76, Epping, N.S.W. 2121.
Sydney 869 1111

Soils
Private Bag No. 2, Glen Osmond,
S.A. 5064.
Adelaide 79 3605

Solar Energy Studies Unit
P.O. Box 89, East Melbourne, Vic. 3002
Melbourne 419 1333

Textile Industry
P.O. Box 21, Belmont, Vic. 3216.
Geelong 43 4377

Textile Physics
'The Hermitage', 338 Blaxland Road,
Ryde, N.S.W. 2112
Sydney 80 0211

Tribophysics
University of Melbourne, Parkville,
Vic. 3052.
Melbourne 347 1888

Tropical Crops and Pastures
Cunningham Laboratory, Mill Road,
St Lucia, Qld. 4067.
Brisbane 370 7121

Wheat Research Unit
Private Bag, North Ryde, N.S.W. 2113.
Sydney 88 0211

Wildlife Research
P.O. Box 84, Lyneham, A.C.T. 2602.
Canberra 41 1211

ISSN 0311-4546