

# **Darwin Centre for Bushfires Research**

(formerly Bushfires Research Unit, Bushfires NT, NTG)

**Research Institute for the Environment & Livelihoods  
Charles Darwin University**

# Darwin Centre for Bushfires Research

## Focus

- ***Applied fire management research***—focusing especially on northern Australian savanna systems, including in near regions (eastern Indonesia, PNG)
- ***Information products***—e.g. NAFI, CFI methodology tools
- ***Training capacity***—both post-graduate and vocational
- ***Commercial consultancy services***—limited, particularly in relation to CFI methodology applications through Northern Indigenous Environmental Services (NIES)
- ***Policy advocacy***—e.g. new economic opportunities through C economy, ‘diversification’

# Darwin Centre for Bushfires Research

## *Administration*

- Under the Research Institute for Environment & Livelihoods (RIEL) at CDU—Director: Andrew Campbell
  - independent day-to-day admin
- Establishment of a Charter and Advisory Board—Chair: Peter Whitehead, with involvement of key stakeholders
  - emphasis on technical matters, including economic assessments—but **not** livelihoods or social science issues

# Darwin Centre for Bushfires Research

## *Capacity*

- **Core staffing**, e.g.
  - Mark Desailly—CFI methodologies
  - Andrew Edwards—remote sensing, risk assessments
  - Jay Evans—CFI methodologies, WALFA
  - Rohan Fisher—NAFI
  - Peter Jacklyn—NAFI
  - Dominique Lynch—vegetation mapping
  - Stefan Maier—NAFI, remote sensing
  - Jeremy Russell-Smith—research program
  - Steve Sutton—training
  - Cameron Yates—team manager, CFI methodologies

## **Partnerships**, e.g. current arrangements

- Bushfires CRC, CDU/RIEL, CLCAC, CSIRO (ES, MAR), DCCEE, ILC, KLC, NAILSMA, NLC, NTCA, NTG (BushfiresNT, DLNR, P&WC), PA, TNC, UNU, University of Melbourne, WAG (DEC)...

# Darwin Centre for Bushfires Research

## *Ongoing projects*

- **Savanna burning methodologies** (in partnership with NAILSMA), funded through ICFF / DCCEE
  - Lower rainfall (600-1000 mm rainfall p.a.) GHG emissions abatement, 2013-2014
  - Higher rainfall (>1000 mm rainfall p.a.) biosequestration, 2013-2014
  - Lower rainfall biosequestration, 2013-2017
  - **NAFI, 2013-2017**
  - Higher rainfall accounting tool, 2013
- **WALFA accounting**, funded through ConocoPhillips, 2013-
- **Three Parks (Kakadu, Litchfield, Nitmiluk) Long-term monitoring, Litchfield 'Super-site'**, funded through LTERN/TERN, 2013-
- **Kakadu NP fire mapping and biodiversity assessment**, funded through Parks Australia, 2013-2015

## Darwin Centre for Bushfires Research

### *Bushfires CRC – Bushfires & Natural Hazards CRC*

- **North Australia Risk Management (Bushfires CRC)** – application of fire severity to north Australian fire risk assessment, finishing 2013
- **Bushfire management and Environmental Services opportunities for building remote community resilience (Bushfires & Natural Hazards CRC)**, starting 2013
  - *Risk assessment for north Australian rural communities—Andrew Edwards*
  - *Management of high biomass flammable grassy weeds—Samantha Setterfield et al.*
  - *Ecosystem Services and Payment for Environmental Services scenario modelling—Bob Costanza (ANU), UNU, NAILSMA et al.*
  - *Fire management in central Australian mulga and spinifex landscapes—Neil Burrows (DEC WA), NAILSMA et al.*

*And with NAILSMA*

- *Assessing remote community resilience capacity and requirements*

## Darwin Centre for Bushfires Research

### *Applying savanna burning in international contexts*

- ***Feasibility assessment*** (2013-2015) in southern Africa, Asia, South America—funded through DCCEE / AUSAID with UNU and NAILSMA as core partners
- ***Methodology applications***, currently being developed through UNU with other international agencies

## Darwin Centre for Bushfires Research

### *Projects under development*

- ***North Australia fire management training institute***—initial funding from DCCEE and Bushfires & Natural Hazards CRC
- ***Carbon economy extension services to NT pastoral industry***—current application to DAFF
- ***Developing sustainable fire management operational capacity for NT Indigenous ranger groups***—current application to Biodiversity Fund
- ***Arnhem Plateau heathlands fire management strategy***—current application to Biodiversity Fund
- ***Savanna burning projects***—current discussions with INPEX and others
- ***Remote sensing of curing and seasonality in north Australian savannas***—under development
- ***PhD and post-graduate projects***
- ***???***