# NATURE CONSERVATION SOCIETY OF SOUTH AUSTRALIA



Arkaroola Wilderness Sanctuary Photo by Georgina Mollison

### Achievements this year:

- Our ongoing collaboration in significant biodiversity monitoring projects, including monitoring Mount Lofty Ranges woodland birds with the University of Queensland, and Bushland Condition Monitoring with many NRM Boards
- Our advocacy for protection of our state's biodiversity, with a focus over the past year on our state's "protected" areas, wildlife, habitats and water
- Becoming a signatory, along with eight other South Australian environment organisations, to a significant new Mutual Agreement with the State's Natural Resources Management Boards
- Continued support for conservation based research through our Conservation Biology Grant. This year we provided funding for four diverse topics ranging from the role of floating macrophytes as a habitat for juvenile fish; Dicyemid parasite diversity in South Australian cephalopod species; testing a method for estimating abundance of Southern Hairy-nosed Wombat; and the recovery of seed banks from fire.
- With the support of our volunteers we have surveyed important remnant vegetation on the Adelaide parklands and provided information to assist in advocating for its protection
- · Topical and interesting public meetings with presentations on vital conservation issues



## ABOUT THE NATURE CONSERVATION SOCIETY OF SOUTH AUSTRALIA



Arkaroola Wilderness Sanctuary Photo G Mollison

The Nature Conservation Society of South Australia is a not-for profit voluntary conservation organisation working to promote and protect South Australia's wildlife and natural habitats.

The NCSSA has a history of almost 50 years as a leader in advocacy for the environment and is a respected source of scientific information and informed comment on the biodiversity of South Australia.

One of the primary objectives of the NCSSA is to "foster the conservation of the State's wildlife and natural habitats", and the Society has taken action on many varied environmental issues since its formation in 1962.

Our activities include:

state's reserve system, and

promoting, protecting and managing native habitats
researching and protecting threatened species and their habitats
advancing the protection, management and strategic expansion of the

educating the community and all tiers of government about environmental matters

## 2010 - 2011 MANAGEMENT COMMITTEE, STAFF & VOLUNTEERS

### **Management Committee**

President vacant
Vice-President Helen Vonow
Secretary Susan Graham
Assistant Secretary Caroline Taylor
Treasurer Richard Winkler

### General committee

Blair Grace
Nerissa Haby
Robert Lawrence
Michael Stead
Jason Tyndall
Andrew Crompton (co-opted)

### Staff

Administrative Manager Elizabeth Lonie; Amanda Stewart (from March 2011)

Conservation Ecologists Anthelia Bond and Georgina Mollison

Database & Website Officer Lesley Parton

Project Manager Tim Milne; Elizabeth Lonie (Acting PM)

Threatened Plant Action Group Program Coordinator Tim Jury

Mt Lofty Ranges Woodland Bird Survey Coordinator Tina Gillespie

Bushland Condition Monitoring Evaluation Officer Peter Mahoney

Mokota Conservation Park Vegetation Survey Meg Robertson

Other project contractors Andrew Allanson, Tom Bradley, Wes Crisp, Sonia Croft,
Kerry Gilkes, Kelly McKenzie, Ben McCallum, Caroline Mussared, Bill New, Penny

Paton, Janet Pedlar, Sarah Telfer, and all of the MLR Woodland Bird surveyors

### **Volunteers**

**Regular:** Max Possingham (database); Rachel Gein, Keith Lloyd, Christina Roberton (general); Sara Boulton (activities). and many others who generously contributed their time throughout the year to various NCSSA conservation projects and activities

### 2010-2011 FUNDING

NCSSA activities are funded by membership subscriptions, donations, book sales, investment interest, government grants and external funding agencies that fund many of our conservation projects.

Funding bodies for the 2010-11 financial year included:

Australian Government Grants to Voluntary Environment and Heritage Organisations (GVEHO) Program; Department of Environment and Natural Resources (including the NRM Boards of Adelaide & Mount Lofty Ranges, Eyre Peninsula, SA Murray Darling Basin, Northern & Yorke Agricultural Districts, and South East; and the Native Vegetation Council); SA Water.

Our part-time Conservation Ecologist position is shared by Georgina Mollison and Annie Bond, and focuses on our biodiversity advocacy role.

Key areas of input include nature conservation and biodiversity protection, public land and sustainable natural resource management and natural heritage conservation.

In addition to our submission on the SA Strategic Plan targets, these are some of the range of areas covered in the last year:

#### **Protected Areas**

Provided advice to Dept. of Environment and Natural Resources (DENR) regarding their strategy for protected areas on public land; the new format for reserve management plans and the discussion paper on protected areas on private land.

Continued to promote the need for appropriate visitor management in protected areas, including providing advice relating to the development of trails the Adelaide and Mt Lofty Ranges region and Kangaroo Island, and continuing to providing advice on the development of the visitor strategy "People in Parks".

Commented on the Australian Government's proposed South West Marine Reserve Network

Continued to support the campaign by SA Marine Conservation Alliance for the establishment of sanctuary zones in South Australia's marine parks.

Made submissions on the Draft Reserve Management Plan for Reserves of the Yellabinna Region, and the South Para Fire Management Plan

### Wildlife and Natural Habitats

Provided advice to the Native Vegetation Council (NVC)

about their framework for native vegetation clearance for road safety, recommending against the proposed measures which remove the disincentives to clearance of native trees on roadsides.

Continued to support local native flora experts and concerned residents to highlight the significance of remnant vegetation in Victoria Park and advocate for the protection of the remnant.

Provided information and advice to the NVC, seeking to protect biodiversity from impacts of recent changes to the Regulations under the Native Vegetation Act. We asked for measures to ensure the minimum impact on biodiversity from native vegetation clearance for fuel reduction; communications be revised to present a balanced and factual representation of the relative risks from native vegetation; and that the NVC monitor and report on the impact of the regulation changes.

Gave a presentation on biodiversity values of Torrens Island at public meeting organised by Anne Bressington MLC Provided advice to DENR regarding the determination of the 2011 Duck and Quail hunting season. We advised that a conservative approach should be adopted, given continued low numbers of some species despite favourable conditions at present, the long dry period that preceded the previous season, and uncertainty about recovery timeframes.

Argued for comprehensive protection for Arkaroola's biodiversity and landscape.

Continued to support members of the community to advocate for biodiversity conservation.

#### Water

Commented on the Water Allocation Plans for the Tintinara and Coonalpyn region and the Eastern Mt Lofty Ranges

Made submissions on: the EPBC referral for pumping hyper-saline water from the Coorong; and the Brown Hill Keswick Storm Water Project.

Provided comment on the management strategy for the Upper South East Drainage Network.



Coming to a roadside near you ?? . Photo by T Jury

## MOUNT LOFTY RANGES WOODLAND BIRDS SURVEY

The Mount Lofty Ranges Woodland Bird Monitoring Program is a long-term project which aims to assess the evidence for declines in woodland birds through repeated surveys of sites throughout the Mount Lofty Ranges. It was initiated by Professor Hugh Possingham, University of Queensland, in 1999.

Our Society manages and coordinates the annual survey as well as securing funding for the project. Survey data is gathered annually from September to December. Each site is independently surveyed 3 times per year using the Bird Atlas' 2ha/20 minute methodology. During the spring and summer of 2010, 163 sites were again surveyed from Gawler to Victor Harbor.

160 Bush Condition Monitoring sites have been established over the last 2 years to describe in detail the vegetation characteristics of the bird monitoring sites. The information collected has potential for the investigation of

habitat requirements for a range of woodland species, combined with over 10 years of bird monitoring data.

Researchers continue to use the data from this study, with recent publications including a scientific paper published by J.udit Szabo, et al, in Emu in February 2011.

Community and government enthusiasm for this project remains high, and we have successfully negotiated increased funding for a further two years with the AMLR NRM Board.

A special thanks to all the surveyors who have helped gather data for the project this year, to Brian Knill and Max Possingham for assistance in maintaining and updating the database, and to Tina Gillespie and Kelly McKenzie for survey coordination.



Musk Lorikeets (Glossopsitta concinna) Photo by Tina Gillespie

### **CONSERVATION BIOLOGY GRANT**

Each year we offer honours and post-graduate students the opportunity to apply for grant funding of up to \$1000 to support their research into aspects of conservation biology.

Funds are available for research which is aimed at:

- improving understanding of the conservation status of species or ecological communities
- providing recommendations for improvement of some aspect of biodiversity conservation

- understanding the ecology of species or communities
- understanding threats to biodiversity and management of those threats.

This year we funded the following research projects:

Ryan Baring Flinders University of South Australia "An investigation of the role that floating macrophytes play as a habitat for juvenile fish from source to sink"

Sarah Catalano *The University* of *Adelaide* "Dicyemid parasite diversity in South Australian

cephalopod species as a tool to explore species status in Sepia apama (Giant Australian cuttlefish)"

Jessica Strauss Flinders University of South Australia "Testing a Mark re-sighting method for estimating abundance of Southern Hairynosed Wombat Lasiorhinus latifrons at Brookfield Conservation Park"

Laura Williams The University of Adelaide "Recovery of seed banks from fire and the impact of grazing on post-fire seedling establishment"

Collaborations are an important part of the way we work ~ both in our advocacy and in our projects. Some highlights this year include:

## A Mutual Agreement between SA environment organisations and Natural Resources Management Boards.

Along with eight other South Australian environment organisations, we became a signatory to a new agreement with the State's Natural Resources Management Boards. The agreement recognises the important contributions made non-government by environment organisations (ENGOs) as well as government agencies and sets out a practical framework to enhance partnerships between ENGOs and NRM Boards.



Minister for Environment and Conservation Paul Caica, centre, with representatives of nine SA environmental groups and the NRM Councill

#### **National Parks Australia Council**

We have long been a member of the National Parks Australia Council (NPAC), a group of NGO's from across Australia with a common interest in the preservation of the natural environment and development of national parks. It provides a way for regular communication, and to facilitate cooperative activities of members at a national level. In November 2010 we hosted the annual workshop and the AGM, at Belair National Park.

#### **WILDEYRE**

NCSSA has continued as a partner in the WildEyre project, with Greening Australia, The Wilderness Society, Department of Environment and Natural Resources (DENR) and Eyre Peninsula Natural Resources Management Board. WildEyre aims to protect the complex and unique habitat areas of western Eyre Peninsula through collaborative landscape scale conservation planning and action.

#### South East Wetland Condition Assessment project.

We are working to develop a wetland condition assessment method in collaboration with DENR, the South East NRM Board, and the Department of Water, and with the valued assistance of Australian Water Environments (who are contracted to work on the project). The assessment method will focus on measuring vegetation change in relation to the impacts of changed water regime, as well as management practices such as grazing, and will support regional reporting and decision making..

### **BUSHLAND CONDITION MONITORING**

The Bushland Condition Monitoring project provides training and resources to allow community and professionals to score and monitor the condition of native vegetation.

Field observations are made on ten condition indicators that are scored regularly. These indicators are measurable and dynamic attributes of bushland.

They demonstrate how the bushland is changing, the magnitude of changes, and whether the condition or health of the bushland is improving, deteriorating or remaining stable. The resultant suite of observations is then compared to a set of Vegetation Community-specific Condition Benchmarks developed for each region by NCSSA.

In the last year 155 additional

sites have been established across the state using this methodology. We provided training workshops to 21 people in the Adelaide Mount Lofty Ranges (AMLR) Region.

We worked with SA Murray Darling Basin (SAMDB) Natural Resource Management Board to develop a protocol for ongoing BCM monitoring, based on compilation, reporting and analysis of over 340 monitoring sites in the Board's area.

For the Northern and Yorke (N&Y) NRM Board we provided a compilation and summary report on all monitoring sites in the region. We carried out a pilot project for a standard methodology to measure average native vegetation condition in a defined subregion.

NCSSA is also working with Eyre Peninsula (EP) NRM Board to compile and report on over 85 BCM sites in the region, and to develop similar monitoring strategies to those developed for N&Y and SAMDB. The aim is to fill the gaps in coverage and vegetation types, with particular reference to vegetation types identified as important as climate change refugia.

To supplement the existing 31 coastal BCM sites, we have worked with the AMLR NRM Board to identify 36 new sites over the range of coastal vegetation types. To be established in 2011-12, these will result in a comprehensive network for long-term monitoring and reporting on management targets identified in the NRM Management Plan for the coastal zone.

# THREATENED PLANT ACTION GROUP (TPAG)

During 2010-11 TPAG continued with threatened flora recovery and stewardship work throughout South Australia's fragmented agricultural regions for around 60 threatened plant species and six threatened ecological communities.

Implemented recovery actions included: abatement of serious weed threats; fencing to protect habitat; pest control; revegetation; plant population monitoring; flora surveys; stakeholder liaison; and public education.

Over 2000 hours of on ground work by more than 50 volunteers contributed to recovering species populations and improving the condition of their critical habitat at around 50 sites.

We continue to develop effective working partnerships with I a n d h o I d e r s , environment agencies and other community groups.

Our productive working bees and field days produce excellent results from actions undertaken regenerate and restore threatened flora. TPAG continue to make a real and tangible contribution toward improving the in-situ conservation prospects for some South Australia's most threatened flora.

Our thanks go to Tim Jury for his great work as Program Coordinator, and to all of the volunteers willing to get their hands dirty.



Blue Top Sun-orchid *Thelymitra cyanapicata*.

Photo by T. Jury

Thanks to our partners and supporters including NCSSA, DENR and Regional NRM Boards, Adelaide Botanic Gardens, Friends of Parks, SA Water, Forestry SA, District Councils, the Australian Plant Society, and numerous private landholders.

### VICTORIA PARK BIOLOGICAL SURVEY

In November 2010, with the help of many volunteers, we undertook a survey of remnant vegetation in Victoria Park, in an area destined for

further development of sports fields by the Council.

We established two vegetation survey sites (using

Adelaide parklands survey site. Photo: A. Bond

standard Biological Survey of South Australia methodology) and also undertook a systematic survey to estimate the density of native plants across the area.

Plant specimens from this area have now been lodged with the SA Herbarium. Twelve native plant species were recorded, including nine native grasses.

During the survey we saw a quail in a tall patch of native grasses.

Thanks to Andrew Allanson and Annie Bond for survey coordination and all of the volunteers who assisted.

### PUBLIC INFORMATION MEETINGS

Our general meetings are held bi-monthly and are open to NCSSA members and the general public.

The meetings usually involve an update of current issues that we are working on, and any general business of the organisation, followed by a talk from a guest speaker invited to discuss an environmental topic of current interest.

Over the past year we have run several of our meetings in partnership with the Biology Society of South Australia (BSSA). These meetings have been well-attended and interesting. Thanks to the team from BSSA and Sara Boulton (now ) and our Activities sub-committee for organising these meetings.

Talk topics over the 2010-11 year were:

Rabbits on the rebound: dire consequences for biodiversity by Dr Ron Sinclair, Senior Research Officer, NRM Biosecurity Unit, Biosecurity SA



Minda Dunes ~ coastal biodiversity at risk. Photo by J Tyndall

Coastal development and its implications for biodiversity. Talks by Claire Lock, Australian Coastal Society (SA Branch), and Maggie Hine, City of Onkaparinga

How Parliament Fails on Biodiversity Mark Parnell MLC, Greens Member of the Legislative Council South Australia

Mapping/modelling the distribution of invasive weed, Buffel Grass (Cenchrus ciliaris) by Victoria Marshall, PhD candidate, The University of Adelaide

Genetic structure and gene flow in the social lizard Egernia stokesii (gidgee skink) by Sarah Pearson, Honours student, Flinders University

Interactions between globaland local-scale stressors: consequences for marine assemblages of rocky temperate coasts by Laura Falkenberg, PhD candidate, University of Adelaide

We would like to express our appreciation to all those who spoke at the above meetings.

## WHAT IS HAPPENING TO THE WOODLAND BIRDS OF THE MOUNT LOFTY RANGES?

With funding support from DENR, we published a information pamphlet in 2011 which summarises the Mount Lofty Ranges Woodland Bird Monitoring Program.

It draws together some of the results obtained to date from eleven years of monitoring. One change observed over this time is that large generalist birds are becoming more common, while many smaller birds are becoming less common.

This study is about measuring and understanding the changes happening in this landscape. But it is also about using this knowledge to protect and restore the region's natural habitats.

This pamphlet has been distributed to all major environmental resource centres in the State, and to participating landholders. It is available from the NCSSA office.

