

Productive Grazing *Healthy Rivers*

Welcome to the second ‘*Productive Grazing Healthy Rivers: Improving riparian and in-stream biodiversity*’ project update. This 2-page update will let you know what the project team has been up to since October 2003. All updates can be found on our website (www.dpi.vic.gov.au/vro/biodiversity/riparian).

The ‘*Productive Grazing Healthy Rivers: Improving riparian and in-stream biodiversity*’ project aims to
 “Improve biodiversity and environmental quality in high rainfall intensive grazing systems, through better management of riparian zones and associated remnant vegetation.”

This project focuses on riparian management issues of relevance to the intensive grazing industries (dairy, beef, prime lamb) that are based in Gippsland and south west Victoria. A multi-disciplinary team (see contacts list) delivers the 6 research modules and the communication activities associated with the project.

The 1st phase of data collection has been completed for the 5 modules that comprise this project. These are briefly, biodiversity surveys (Module 1); wood to water (Module 2); weed decision support tool (Module 3); weeds and native tree recruitment (Module 4), dairy impacts on rivers (Module 6); and are described in more detail below. Data is currently being analysed and the experiments/activities for the next phase are being designed based on these results, or in some cases, are underway.

Welcome to Alison and Vivienne, who are replacing John Davies, as he is no longer with DSE.

Please feel free to contact me or the Project Officer, Michelle, or any of the other team members if you require additional information or assistance.

*Sharon Aarons
Project Leader*

Research Modules

The activities associated with the 6 research modules developed by the team are given below.

Biodiversity Surveys

The limited riparian biodiversity information for grazing properties in department databases is the basis for this research. The 2nd half of the surveys have commenced with small mammal trapping. Bird, frog, in-stream macroinvertebrates and vegetation surveys will occur this year. Over 442 mammals have been trapped, the vast majority of those being **native** small mammals. There is definitely a biodiversity benefit to fencing riparian areas, even those fenced for only 7 years.

Michelle Jones

Wood to Water

Rebecca’s project to improve riparian biodiversity values in revegetated riparian zones, by re-introducing small woody debris (SWD) into streams is progressing well. Sites have been identified and sampled in preparation for the introduction of woody debris. Reference sites have also been identified and sampled. Locally sourced timber has been placed in 7 out of the 8 project site creeks. This project will determine how reintroduction of SWD will change in-stream macroinvertebrate populations as well as any impacts on stream morphology and hydrology.

Michelle Jones

Weed Decision Tool

One of the reasons farmers are reluctant to fence riparian areas is the on-going weed management required. A weed decision support tool has been developed to assist farmers with identifying when environmental and production weeds need to be controlled in the riparian zone and how to do so. The weed management support tool for south west Victoria is complete and will be demonstrated to various agencies. The Gippsland version is being prepared.

Nigel Ainsworth

Native Vegetation Recruitment

Weeds vegetation surveys of 36 sites across Victoria were undertaken late spring / early summer as a first step to determining whether weeds are a major barrier to recruitment of native vegetation. Blackberries were found in 33 of the 36 sites along with a number of other weeds such as thistles, buttercup, Yorkshire fog, willows and dock. This data is currently being analysed and will be used to design field experiments to test the effect of weeds on regeneration of native tree species.

Fiona Ede

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Next Technical Reference Group meetings

- Gippsland - 15 September 2004, Chair - Matt Gleeson
- South west Victoria - 2 September 2004, Chair - Andrea Van de Wouw

Contact Michelle Jones for further information

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Dairy farm impacts on water quality

Dairy farm management activities appear to degrade water quality and lead to nutrient accumulation areas on a dairy farm in West Gippsland. Soil phosphorus is elevated near stand off areas outside the dairy shed and in low-lying areas below the dairy and near to the creek. Water sediment, nutrient and microbial concentrations are elevated downstream of tracks and the low-lying areas where nutrients have accumulated. Based on a discussion of the data and a site visit by scientists, farmers and extension staff at a 2-day workshop in March, improved riparian management activities were identified. Managing tracks and the stand off area were considered a priority for this site. Willows are currently being removed and the site fenced and replanted, with on-going sampling planned to monitor changes at the site post willow removal and revegetation.

Sharon Aarons

Communication Activities

Visit our website (www.dpi.vic.gov.au/vro/biodiversity/riparian) for the latest information about our project. All publications are available in 'pdf' format and project location, site and research details are available. Information from all research modules will be posted on the site as soon as it is available.

Activity	Source	No.
Articles	Industry Newsletters, Media	6
Conferences	Ecol. Soc. Aus. & Aus. Soc. Lim	2
Workshops	TRG, Catchment, Module 6	4
Field Days	Gippsland, Tasmania	3

The team is currently developing the communications / extension package that will be used to deliver the project outputs. In the next few weeks and months the team will be disseminating project information in a number of formats, in line with the package that we are developing. The information will be targeted to extension and service providers, but will also be available to landholders.

Technical Reference Groups

The TRGs have assisted greatly with the development of the communications / extension package for the project. We will be working with them on project information delivery as the TRGs represent landholders, industry farmer groups (eg UDV, BIA), and agencies involved in natural resource management (eg CMAs).

Nerissa Court (DPI) and Cath Harris (WGCMA) have joined the south west and Gippsland TRGs respectively. Welcome to the team. We are looking forward to working with you.

Project Funders/Cofunders: Victorian DPI/DSE - Ecologically Sustainable Agriculture Initiative, Dairy Australia, GippsDairy, Land and Water Australia, CRC for Weed Management, West Gippsland Catchment Management Authority, Monash University – Churchill