

# Productive Grazing *Healthy Rivers*

Welcome to the first of the 'Productive Grazing Healthy Rivers: Improving riparian and in-stream biodiversity' project updates. This brief update will keep you informed about the latest activities of the project team and will be distributed 6-monthly in April and October.

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.

This last 6 months has been a very busy time for the PGHR team members. Research modules have commenced and we have been actively involved in fieldwork in south west Victoria and Gippsland. On the communication front you may have spotted some of our articles in industry newsletters and regional newspapers. We also commenced our 'Technical Reference Group' meetings and have held 2 each at Ellinbank and Warrnambool. Feedback from the TRG members has been positive and we have appreciated their input into project and communication activities. 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 aim of this research module is to survey riparian and in-stream biodiversity (flora and fauna) along fenced and grazed (unfenced) waterways of dairy and beef properties. Biodiversity surveys commenced in autumn 2003 with small mammal trapping in Gippsland and the south west. Winter bird surveys were completed in both regions. Results to date suggest a greater abundance of native animals in fenced versus grazed riparian zones. Interestingly, fenced zones do not appear to harbour more introduced small mammals than grazed zones.

*Michelle Jones*

### **Weed Decision Tool**

Weed management is one of the major barriers to adoption of improved riparian zone management. This module will develop a tool to assist landholders and farmers manage environmental and production weeds in riparian zones. A draft document has been prepared with the assistance of the south west Technical Reference Group and will be trialed in the south west in the next 6 months.

*Nigel Ainsworth*

### **Wood to Water**

A method for improving riparian biodiversity values in revegetated riparian zones, by re-introducing small woody debris (SMD) into streams, will be investigated in this module. The impact of SMD re-introduction on in-stream macroinvertebrate populations will be determined, as will the effects of SMD on stream morphology and hydrology, to avoid any possible adverse impacts for landholders.

*Michelle Jones*

### **Student joins PGHR team**

Rebecca Lester commenced her PhD in July with Monash University – Gippsland. She is co-supervised by Michelle Jones and Wendy Wright. She will undertake the 'Wood to Water' module as part of her PhD project. Welcome Rebecca.

*Michelle Jones*

### **Native Vegetation Recruitment**

Weeds are thought to be the major barrier to recruitment of native vegetation. This CRC-funded postdoctoral project will test this assumption in riparian zones on intensive beef and dairy properties, as well as on riparian zones on non-agricultural land. Project sites have been identified in south west Victoria and west Gippsland, and field work has commenced.

*Fiona Ede*

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## Next Technical Reference Group meetings

- Gippsland - 10 March 2004, Chair - Terri Rodaughan
- South west Victoria - 18 March 2004, Chair - Sue Mudford

Contact Michelle Jones for further information

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## Riparian condition on dairy farms

This research module was completed and the report presented in April this year. A 'rapid assessment' technique was used to assess the condition of riparian zones on 107 Gippsland dairy farms, compared with 7 reference (state/national forests) sites. While the riparian condition on Gippsland dairy farms in general was not good, some fenced and planted sites scored higher than the reference sites. Also, dairy cow stocking rate did not affect riparian condition, due to good rotational grazing practiced by farmers. However, fencing to restrict cow access to creeks and streams is the best way to protect riparian zones on Gippsland dairy farms. For copies of this Johnstone Centre report (#178) contact Sharon Aarons or Michelle Jones.

*Sharon Aarons*

## Dairy farm impacts on water quality

The impacts of dairy farm activities (cow tracks and laneways, stand-off areas, effluent ponds) on riparian zone and in-stream condition are being assessed along a creek through 2 adjoining farms. This module commenced in January and site works and instrumentation is complete. Water and soil samples, biodiversity surveys and ecological measurements (eg canopy cover, stream temperature) have commenced and are on going. Based on the data, improved riparian zone management changes will be recommended to the site farmers in early 2004.

*Sharon Aarons*

## Communication Activities

Activity	Source	No.
Industry Newsletters	How Now Gippy Cow	5
Publications	Johnstone Centre Report 178	1
TRG workshops	Gippsland & South west	2
Media articles	Various regional/local papers	5

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## Technical Reference Groups

The TRGs were established to advise and assist the PGHR team with project communication activities and provide comment and feedback on the research modules. The TRGs represent landholders, industry farmers groups (eg DA, UDV, BIA), and agencies involved in natural resource management and biodiversity conservation such as shires, CMAs, water boards, Trust for Nature, Landcare, with 1 group based in each region. The team anticipates that the TRGs will assist in communicating the outputs from this project to a range of stakeholders.

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