

# **INTEGRATING ECOLOGICAL RESEARCH AND HUMAN DIMENSIONS: IMPROVING FERAL PIG MANAGEMENT BY FOSTERING INNOVATIVE COMMUNITY ENGAGEMENT.**

**Darren Marshall**<sup>1</sup>, Matthew Gentle<sup>2</sup>, Ted Alter<sup>3</sup>

<sup>1</sup>Queensland Murray-Darling Committee, PO Box 6243, Toowoomba, QLD 4350

<sup>2</sup>Pest Animal Research Centre, Biosecurity Queensland, Department of Agriculture, Fisheries and Forestry, Queensland, 203 Tor Street, Toowoomba, Qld 4350, Australia.

<sup>3</sup>Penn State University, 204 Armsby, University Park, PA USA, 16802

darrenm@qmdc.org.au

Significant advances have been made using the biophysical sciences to improve our knowledge of feral pig (*Sus scrofa*) ecology and management. Limited implementation of such knowledge by land managers remains a major barrier to achieving landscape scale control. While this situation creates a suite of interrelated problems, it presents the opportunity to test whether blending ecological research with community engagement approaches can improve the effectiveness of on ground management practices.

This study integrates human dimension research with biophysical research on feral pig ecology to create more effective management and extension tools. There is significant value in bridging the gap between research and extension to encourage greater participation in feral pig control. I am implementing an innovative approach that aims to improve the participation of the community in coordinated feral pig management at a landscape scale- using applied science to achieve community-led action.

In conjunction with individual land managers, Arrow Energy, Santos GLNG, Northern Tablelands and North West Local Land Services, NSW National Parks and Wildlife, and the Queensland Murray Darling Committee, this project uses innovative research techniques to investigate feral pig movement ecology, whilst also creating a strong interface for community ownership and change.

GPS tracking collars are fitted to feral pigs on four sites to assess movements, habitat use, to guide control techniques and most importantly promote ownership and interest from the community in the project. I have employed treatment and control sites in the community to evaluate whether ecological research can create community ownership and commitment to address the feral pig problem. Community engagement will be evaluated using the 'most significant change' method of measuring attitude change across and within the study sites. This presentation will discuss the implications and learnings to date in implementing an integrated scientific and community engagement approach.