

Cyprinus carpio: victim or villain?

European carp (*Cyprinus carpio*) have topped plenty of criticism in the past 20 years. They've been blamed for muddying waterways, destroying aquatic plants, eroding riverbanks, spreading diseases, causing algal blooms and outcompeting native fish. But are they really guilty of such crimes?

The controversial species is being put on trial for its alleged sins during a three-year project led by Dr Jane Roberts of CSIRO's Division of Water Resources at Griffith and funded by the Murray Darling Basin Commission. The project aims to provide a balanced review of the carp's history and environmental significance in Australia, and to investigate potential management strategies.

The commission's funding decision follows a forum last June (1994) attended by scientists, landholders and natural resource managers, organised by the Murrumbidgee Catchment Management Committee (MCMC). The forum concluded that carp should be given a special status with a view to eradicate the species from Australian waterways, and members then wrote to federal and state ministers with demands for action.

Carp are seen as a problem by municipali-

ties, landholders, water authorities, conservation groups and recreational fishers in areas of south-eastern Australia, Roberts says. But because their shenanigans are neither scientifically proven nor quantified, management strategies cannot be developed. The lack of overview also means that it is difficult to identify information gaps and research needs.

People's fears about carp have inspired many myths, some more easily exposed than others. For a start, the species originated in Asia, not Europe. Secondly, there's a restaurant on the shores of Lake Alexandrina whose popular menu contradicts the theory that carp are inedible. As for the carp's capacity for environmental destruction, some people see the fish as scapegoats for the impacts of fishing, river-flow control for irrigation and the deliberate clearing of aquatic vegetation by humans.

Roberts has conducted water-tank experiments showing that the carp's feeding method – sucking up mud, sieving out food and blowing the silt back into the water – causes sediment to become suspended, thus undermining aquatic plants. But the consequences of this practice in the natural environment have yet to be established.

Roberts says although carp can alter the characteristics of a water body, they're probably not guilty of all they're accused of. 'The difficulty lies in separating the fact from the myth, in working out whether they are causing or maintaining the problem,' she says. 'For example, what is the link between carp and blue-green algae?'

The expected outcomes of the Carp in Australia project include the publication of a book on the history and ecology of the carp for the general public; a technical overview of the impact of carp in Australian waters and prospects for management; and the staging of an international conference or workshop. The technical report will include an international literature review and information about Australian studies in progress. Roberts is also working with aquatic plant consultant Geoff Sainty to compile an oral history of changes in the ecology of a river by interviewing lower Lachlan River residents.

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Bryony Bennett

Travelling the road to a healthier Australia

In biblical times, people ate more barley than any other grain. Today, however, barley plays second fiddle to wheat, rice and oats, even though barley's dietary fibre lowers cholesterol and is thought to reduce the risk of bowel cancer.

But barley may soon be making a comeback. Because of the grain's excellent properties, CSIRO is working with the food industry to help re-introduce barley into a wide range of food such as breads, breakfast cereals and pasta.

Information about selecting and preparing other healthy foods, and about 'environmentally friendly' ways of producing them, is a feature of CSIRO's new eatSmart travelling food exhibition.

The exhibition has been put together by CSIRO Information Services in Melbourne and follows in the footsteps of their Genetic

Engineering – Will Pigs Fly? display, which visited 26 Australian locations in 1992-93.

It is designed to provide information about food and nutrition, and to show consumers how CSIRO researchers and the food industry are working together to improve the food we eat.

Touch-screen 'interactives' featuring text, sound and video are used to convey the exhibition's key messages.

The eatSmart exhibition will tour capital cities and rural areas across Australia in the next two years, and will be on show at shopping centres, science shows, science museums and Royal agricultural shows.

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