

Toodyay Friends of the River Inc. - Tamarix Control Program

by Wayne Clarke

The Toodyay Friends of the River (TFOR) was inaugurated in 1994 with an aim to undertake restoration of the Toodyay section of the Avon River, and its environs. In the following years, consolidation of the membership, and development of action plans were the focus.

In 1998, members of the TFOR began the process of cleaning up weeds along the river. These weeds included what we thought at the time was Athel pine, a species of tamarix (*Tamarix aphylla*). This was a major task, as the weed was not easy to remove, and had established in the riparian vegetation through the townsite, through the popular picnic destination, Duidgee Park, and downstream toward the caravan park.

At the same time, members of TFOR were invited (by the Department of Water) onto the Steering Committee to develop the first River Recovery Plan (RRP)¹, published in 1999. The TFOR resolved to include *Strategic Actions* from the plan in their work schedule, and one of these actions was:

21. Prepare site-specific weed eradication schedules closely linked to the site-specific revegetation schedules.

The RRP cited '*Tamarix and bridal creeper as the dominant weed species, with Tamarix present at most sites*'. This was enough of an incentive for the TFOR to concentrate their efforts on this particular weed, as experience has shown that once established, tamarix is extremely difficult to eradicate, or even control.

The method of control undertaken by the TFOR was to cut the tree down, and then grub out the root system. This task was immensely labour-intensive, requiring the assistance of a back-hoe and much physical effort. The enormous root system of the plant exposed other issues - if a small section of vegetative material was left behind, this would form the basis of a new plant. Extreme care was essential to ensure this didn't happen.

In 1999, a joint application between the Shire of Toodyay and the TFOR was made for a Ministry of Justice Prisoner Work Camp in Toodyay, and this application was successful. Late 2000, a team of women arrived in Toodyay, and were accommodated locally. Their first task - tackle the tamarix! Although the Work Camp was discontinued in September 2001 (lack of interest by prisoners was cited as the reason), the number of projects completed was exceptional. The TFOR could see some light at last with tamarix control.

The TFOR was particularly concerned with reports on how Athel Pine had proliferated on the Finke River in the Northern Territory, and the Gascoyne River at Carnarvon. The Department of Agriculture has had an officer working on local infestations at Carnarvon since the early 1990s, and correspondence began between the officer and the TFOR. Suggestions on how the Department undertook their control program for Athel Pine were noted for inclusion with the TFOR action list. Additionally, Athel Pine is listed as a '*Weed Of National Significance*' (or WONS), and can attract considerable funding through the WONS programs.

Funding through a Lotterywest Grant in 2003 saw the TFOR purchase the necessary equipment to 'stump inject' the chemical *Tordon*[™] directly into the tree stumps and branches following cutting the top-growth. However, the success of this method of control in Toodyay was proving to be more labour-intensive than the previous method. This may be attributed to the fact that the species growing in Toodyay was not Athel Pine after all, but small-flower tamarix (*Tamarix parviflora*). So... back to the 'weeding-board'.

In 2006, the TFOR was successful with an Australian Government Community Water Grant application that included tamarix removal. The Shire of Toodyay's backhoe was secured for assistance, and vast numbers of previously impenetrable tamarix plants were removed. The expected regrowth was sprayed with glyphosate, however this follow-up treatment proved ineffectual.

Again, it was back to the 'weeding board'. The TFOR then experimented with cutting regrowth by hand, and immediately painting the cut with undiluted *Tordon*[™]. This method proved to be successful, with over 90% kill rate. Ongoing monitoring has revealed the occasional regrowth in a number of areas previously treated, but most have been minimal, and easy to deal with. Unfortunately, at some locations, thought to be clear of the weed, large plants reappeared. In 2009, thanks to the Department of Water (DOW), a Green Corps crew (DOW supervised) assisted the TFOR significantly by removing these large infestations. The TFOR has since re-treated the regrowth, and is monitoring for further growth.

The TFOR are most pleased to have found a solution to the control of tamarix in Toodyay. However without continual monitoring, it still remains sceptical as to complete success, and some areas may need to be re-treated.

In March 2010, the National Athel Pine Committee (NAPC), together with the Australian Weeds Committee, visited Toodyay to view the work undertaken by the TFOR. The NAPC were in WA for a Stakeholder's Forum to further their efforts in strategic management of the weed. TFOR Representatives were unable to attend the Forum, but a paper was presented on their behalf.

The TFOR needs to be forever vigilant in watching out for new infestations of tamarix (and other invasive species). However, we are blessed with the streak of one of Toodyay's pioneers, noted botanist James Drummond, 'the man with his eyes on the ground', and are sure to notice something unusual, such as a 'Tamarix Bin-Laden'. The TFOR will continue their role as 'weed terrorists'.

Further reading:

Tamarix Species - how to tell the difference A Fact Sheet produced as part of the National Athel Pine Program (supported through the Australian Government's Caring for Our Country program and the Northern Territory Government) <http://www.weeds.org.au/WoNS/athelpine>

Athel Pine National Best Practice Management Manual Managing Athel pine and other Tamarix weeds in Australia July 2008 (sponsored by the Australian Government and supported by the Northern Territory Government's Department of Natural Resources, Environment and The Arts (NRETA.)) <http://www.weeds.org.au/WoNS/athelpine/docs/manual> (5 pdfs make up the manual)

Weeds of National Significance Weed Management Guide- Athel pine or tamarisk (sponsored by the Australian Government Natural Heritage Trust, the CRC for Australian Weed Management and the Commonwealth Department of the Environment and Heritage 2003)

http://www.weeds.org.au/WoNS/athelpine/docs/wmg_athel_pine.pdf

Athel Pine (Tamarix aphylla) Strategic Plan. (sponsored by the Commonwealth of Australia and the National Weeds Management Committee - 2000).

<http://www.weeds.org.au/docs/apstrat.pdf>

Athel Pine on Western Australian Mine Sites (sponsored by the Australian Government Natural Heritage Trust and the Rangelands NRM Coordinating Group)

http://www.weeds.org.au/WoNS/athelpine/docs/Athel_pine_&_Mines_in_WA_brochure_Dec07.pdf

For further information on the Toodyay Friends of the River, or on their tamarix control program email to: info@toodyayfor.org.au Or visit their website at <http://www.toodyayfor.org.au>

¹ Water and Rivers Commission and Avon River Management Authority 1999, *River Recovery Plan, Section 3 - Toodyay*. Water and Rivers Commission, River Recovery Plan Series No RRP 1. ISBN 0-7309-7438-3, ISSN 1441-5208