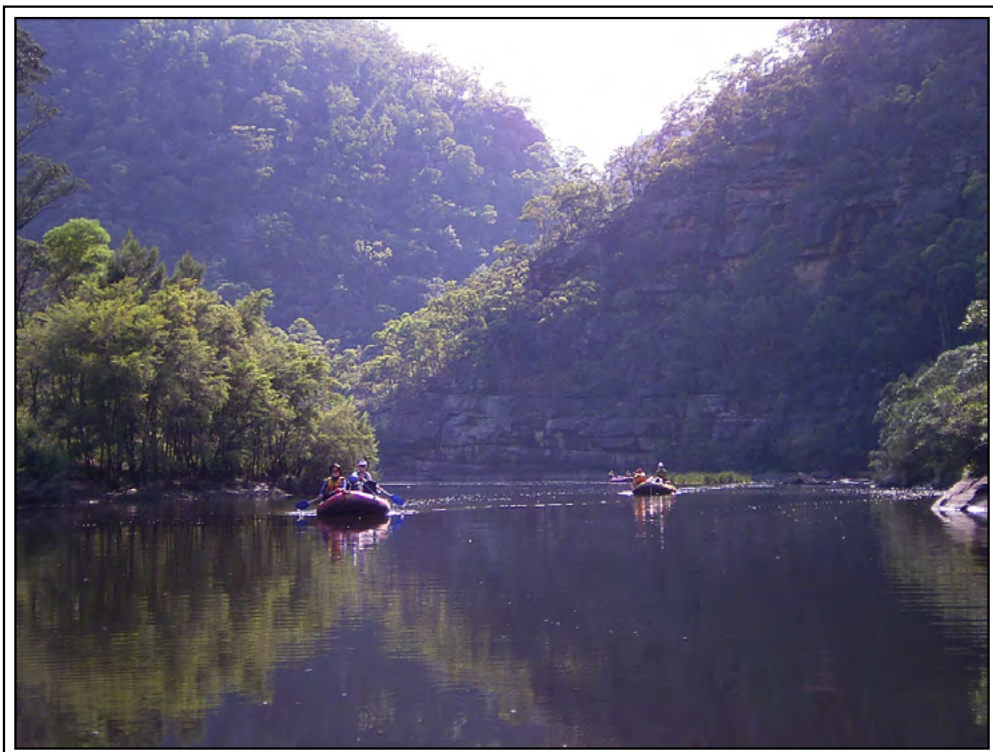




Twenty Years

of Adventure Conservation

2000-2020



FRIENDS of the COLO

Twenty Years of Adventure Conservation 2000-2020

From the President	3
Summary	4
How it all began	5
Twenty years - a potted history	8
Achievements	25
Where to from here?	28
Appx 1 - Weed control achievements	30
Appx 2 - Volunteer effort	38
Appx 3 - Random Reflections	41

Published as a digital monograph in 2020 by Friends of the Colo Inc
PO Box 204 Wentworth Falls NSW 2782
friendsofthecolo@gmail.com

Copyright © 2020 Friends of the Colo Inc, individual contributors as indicated in Appendix 3, and photographers J Cottrell, E King, A Lane, G Luscombe, A Macqueen, K Montagu, I Partridge, L Partridge, C Pavich, V Richardson & SL Sin.

Cover image: in the heart of the Colo River gorge (J Cottrell)

FROM THE PRESIDENT

Recently, I have been looking back at old photos of Friends of the Colo activities. I've been struck by the number of willows in the photos, as well as the massive size of some of them. After twenty years I had forgotten the scale of the task we took upon ourselves.

Twenty years ago, someone said it couldn't be done. The task was too big, too difficult, too ... impossible. Some of us decided that, yes, it was a big job but if no-one started it, no-one could finish it. So, Friends of the Colo began. It was the first organisation I experienced where people immediately volunteered to take on the various administration, logistical and leadership rolls and there was no need to persuade or cajole a reluctant volunteer to do something possibly outside their comfort zone. I believe it was this that allowed us to be so successful. Our membership came from a variety of backgrounds and had a wide range of skills, experience and abilities. These coalesced and the whole became greater than the sum of its parts.

The close personal ties and bonds of friendship we have forged have been one of the great rewards of belonging to such a group. We have enjoyed each other's company and had fun being together. That has been another large part of our success. After all, if people don't enjoy themselves when taking part in an activity, they aren't going to come back for more. Even the mud baths at Gospers Lagoon somehow turned into fun, as did making shelters out of rafts when it was raining. There are so many good memories, interspersed with only a few that are less good.

Over the years many of us have taken on leadership roles. However, without a team a leader is nothing, and nothing can be achieved. Throughout our twenty years we have had amazing teams of amazing volunteers. Even if they think that their contribution was negligible, or that they were "rubbish" at something, every single person has played a part. **THANKYOU EVERYONE.** It has been an amazing and fulfilling experience. **KEEP ON HAVING FUN!**

Carol Isaacs

FoC President 2002-2020

SUMMARY

Friends of the Colo was formed in 2000 to eradicate invasive Black Willows in the Wollemi National Park within the Greater Blue Mountains World Heritage Area. Having substantially succeeded in that endeavour the group moved onto willows outside the park, while turning its attention to other noxious and environmental weeds threatening the Colo River system within the park. Recently, its program has extended to other remote parts of the World Heritage Area, and to other catchments in NSW.

Friends of the Colo established a sustainable model for a self-managing remote-area volunteer conservation group, and is one of few volunteer groups to take on a landscape-scale weed control program. The group has contributed some 4300 voluntary person-days to the environment and has helped to establish other regional and remote area weed control programs in NSW and Tasmania. In doing so it has brought together a range of dedicated individuals who have all benefited personally from the opportunities to connect with and care for the natural world. FoC's story is therefore as much about people as about its conservation achievements.

The group's 20th anniversary followed the bushfires and floods which impacted severely on Blue Mountains waterways and some of the weed sites that the group has been managing. It also coincided with the onset of COVID-19, which disrupted the anniversary celebrations. However, the biggest challenge for Friends of the Colo is not fire, flood or COVID-19, but the aging leadership and the need for succession by a younger cohort able to make a commitment to managing the group and conducting multi-day activities.



Leptospermum spectabile (Colo River Tea Tree)

HOW IT ALL BEGAN

The Friends of the Colo (FoC) is arguably Australia's first self-managing volunteer "adventure conservation" group. It was formed in 2000 to undertake remote-area weeding in the Wollemi National Park and Wilderness, managed by the National Parks and Wildlife Service (NPWS).

Along with its largest tributary, the Capertee River, the Colo River winds through nearly 100 kilometres of gorge country. Other tributaries including the Wolgan and Wollangambe Rivers, and Wollemi Creek, are similarly contained within spectacular ravines. There are no vehicular access points except in the upstream reaches and no tracks along the rivers. Access is limited to a number of rough mountain passes. This is some of the most rugged country in Australia.



In 1998 bushwalker Graham Ravenswood, a professional bush-regenerator, was on a bushwalking-cum-liloing trip through the wilderness when he was horrified to find extensive galleries of invasive willow downstream from Canoe Creek. He mapped their location and



Waiting for the helicopter: participants in the first WOW, April 2000

contacted the NPWS. The staff rarely visited the area owing to the difficulties and cost of access, but in February 1999 Ranger Ian Turner organised a canoe-based expedition to investigate. A party of four staff and two volunteers was flown into the gorge by helicopter at the Wollemi Creek junction, and paddled down the river in Canadian canoes. None of them had previously experienced the river or its challenges. This expedition confirmed the presence of thousands of the highly-invasive black willow (*Salix nigra*). Along with other willow species, this plant was declared a Weed of National Significance that same year.

Although the party treated a few of the willows, it was realised that considerable resources and a range of skills would be needed to deal with them all.

The next year a new ranger for the area, Vanessa Richardson, who had been on the 1999 reconnaissance, organised a five-day helicopter-supported canoe trip for staff and volunteers. Twenty-eight people were involved, about half being staff and half being volunteers. In selecting volunteers Vanessa networked widely to ensure a broad range of skills and experience. This was to prove vital in what followed later. The volunteers included experienced bushwalkers, canoeists and bush regenerators. Some were already familiar with the Colo country.

The event was dubbed Willows out of Wollemi (WOW), and it took place from 3-7 April 2000. The participants were divided into three groups, starting at different points in the gorge. The outcomes were limited however. The river flooded, the Canadian canoes proved unsuitable, some participants had little experience in canoeing or bush regeneration work,



Canoes and equipment being lowered by helicopter, for the first WOW



River drama during the first WOW

and the treatment employed proved inadequate. However, important lessons were learnt and no-one was injured. Moreover several of the volunteers had a transforming experience and were strongly motivated to carry the task forward. They understood the need to control the willows, they thought it was achievable, they were attracted to the challenge of operating in the wilderness environment and perhaps above all the experience had fostered a special bond.

With the encouragement and assistance of Vanessa, the volunteers established FoC. The first meeting was on 5 June 2000. At the core was a group of a dozen or so energetic people with skills including remote area bushwalking, canoeing and rafting, bush-regeneration, botany and administration. They could develop and implement a productive program with appropriate risk-management. The first committee members were Andy Macqueen (president), Michael Hensen (vice president), Jeff Cottrell (treasurer) and Alan Lane (secretary). Others joining the committee soon afterwards included Carol Isaacs, Fred Wood, Richard McGoogan, Helen Cavanagh, and Ian and Lyn Partridge. All but the latter three had been on the April WOW, and most are still active. Carol Isaacs succeeded Andy as president in 2002, while Andy took on the vice-presidential and secretarial roles. Vanessa continued to provide support and the all-important liaison with NPWS, a task later inherited by Rangers Keirilee James and Paul Glass.



Vanessa

By January 2001 membership of the group exceeded 60 people. Volunteers were initially attracted by word of mouth. Over the years they have also been drawn through bushwalking clubs (particularly Springwood Bushwalking Club), the National Parks Association, a “Yahoo Groups” web page, newsletters, media articles and word of mouth.

FoC became an incorporated association in November 2001. Its stated objective was “to facilitate the conservation of Bushland in the Colo river catchment and its environs”, and its principle activities were the eradication of and prevention of invasion by weed species, and the re-establishment of native species. In 2003 FoC became a Landcare Group, which enabled it to operate on private land and other country outside National Parks.



Jeff



Michael



Carol

TWENTY YEARS – A POTTED HISTORY

Friends of the Colo set about planning activities to survey and treat willows along different parts of the river. In December 2000 two members, with a party from Springwood Bushwalking Club, travelled a remote upstream section of the river on lilo airbeds, surveying and treating willows on the way. The same month, a trial WOW was conducted on a section of the river to see whether inflatable rafts would offer a better option than canoes. (See Carol Isaacs' account, Appendix 3). The rafts were provided by Bruce Baxter of Paddle Sports Australia. Bruce and Jack Hodge, from the Penrith Whitewater Stadium, provided their services as rafting guides. Fred Wood and Richard McGoogan provided willow-treating tool kits they had designed for the purpose.

Training programs were developed in willow-treating and remote area skills, while the Penrith Whitewater Stadium provided its facilities for whitewater awareness training. Jack Hodge and Bruce Baxter continued to support FoC in various ways for several years.



Volunteers practising safe river crossing during white water awareness training at Penrith Whitewater Stadium in 2017

The first grant

In February 2001 FoC received a three-year grant of \$84,695 from the NSW Environmental Trust. This enabled the second helicopter-assisted WOW expedition to proceed in April 2001, utilising inflatable rafts purchased from the grant. Twenty-five people were involved, including rafting guides employed for the purpose. The second WOW resulted in many willows killed, but there was much more to be done.

There was a third WOW in September. One group commenced at the Capertee-Wolgan



Fred



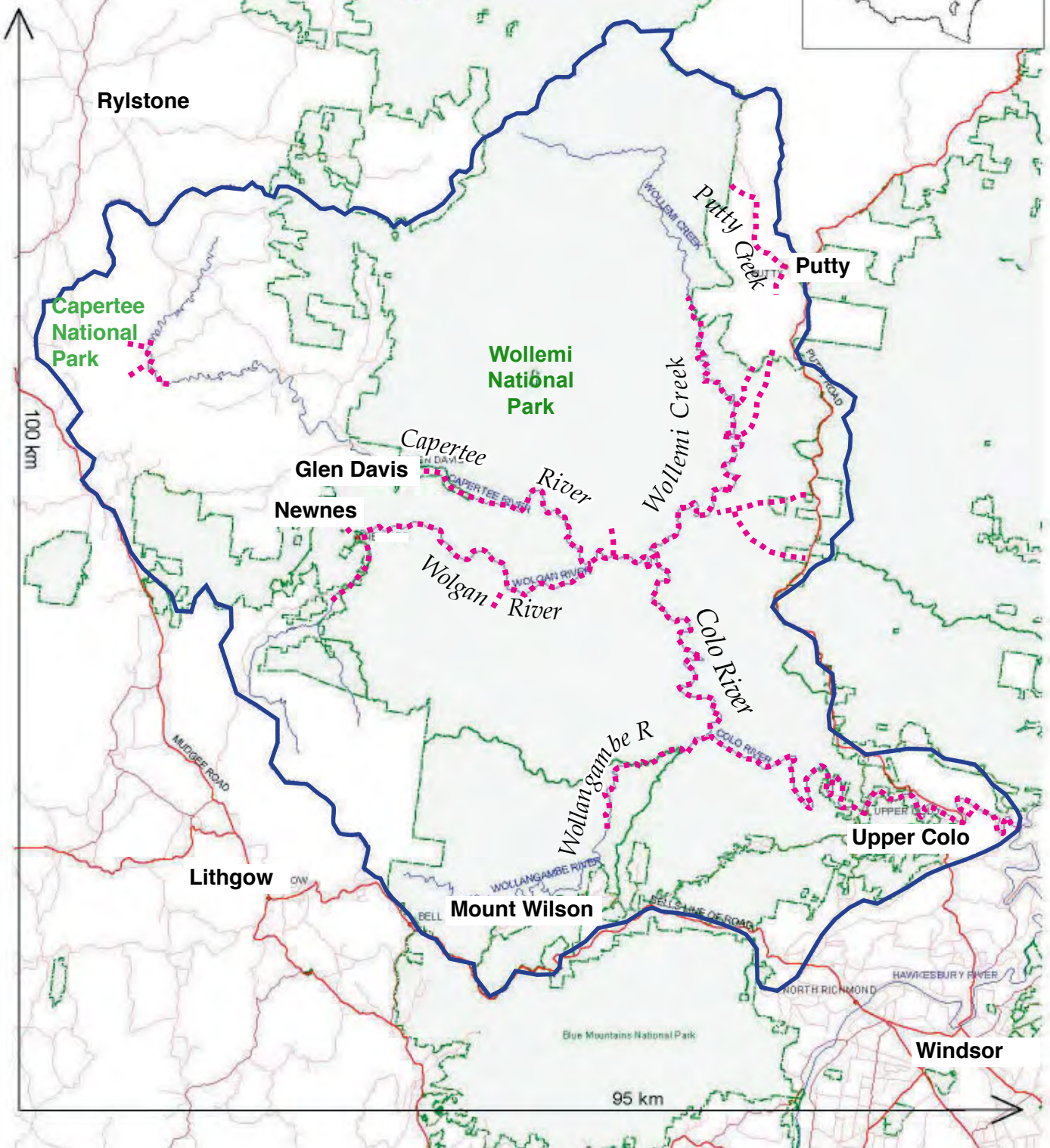
Richard



Alan

Targeted rivers and creeks

Reaches surveyed and treated where necessary 2000-2020



Colo River & its catchment

- NPWS Estate
- Colo River Catchment Boundary

Scale 1:375 000



Map based on Australian Geodetic Datum (AGD66) Zone 56 Coordinates

Copyright 2004 NPWS. This map is not guaranteed to be free from errors or omissions. The NSW National Parks and Wildlife Service and its officers accept no liability for any loss or damage arising from the use of this map. The NPWS is now part of the Department of Environment and Conservation (DEC)



This project has been assisted by the New South Wales Government through its Environmental Trust

Map prepared by Saskia Hayes, NPWS GIS Officer, June 2004

junction—the start of the Colo— instead of at Wollemi Creek, where the uppermost groups had started in the previous WOWs.

Other groups started further down. A journalist and a photographer from *Australian Geographic* joined in, and their article was later published in the magazine’s edition of April-June 2003. This WOW resulted in the “primary knockdown” of all the willows within the National Park. A downside was that the river level was very low, so it was very arduous dragging rafts through the rapids. This was a continuing issue over the years.



The second WOW, April 2001. Portaging rafts in low-flow conditions was hard work.

By the fourth WOW, in April 2002, FoC had honed its skills not only in killing willows but in safely and efficiently managing what amounted to a challenging program on the river. A kill-rate of around 98% was being achieved: most of the willows being treated were those that had previously been missed, or emerged as new seedlings, rather than trees which had been unsuccessfully treated on previous occasions.

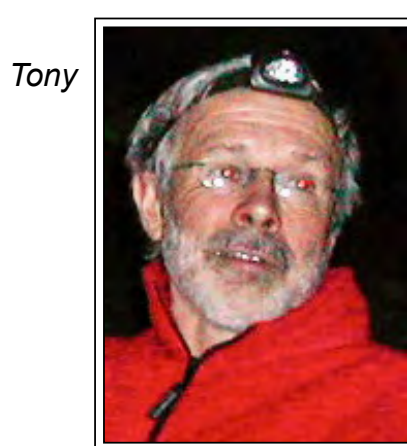
Meanwhile, Carol Isaacs assisted by other volunteers wrote a management plan for willows on the river — a task that was required under the grant.

The nursery

There was action on other fronts. In FoC’s first year Fred Wood and Richard McGoogan started a nursery to grow plants that could be used for river bank rehabilitation along the Colo, or sold to various organisations for other bush regeneration projects to raise funds for FoC. They knew little about native plants, but they picked up the required knowledge from reading, and from fieldwork with botanist Tony Rodd. In 2001 Fred attended a workshop on the “long-stem planting” method for riverbank stabilisation pioneered by Bill Hicks, and subsequently grew long-stem plants for use by FoC and others.



Andy



Tony



Phill



Fred in the nursery after the 2002 fire — but in action again a few months later

The nursery was located in the National Park at Glenbrook, with the cooperation of NPWS staff. The costs were covered by the Environmental Trust grant and a grant from the Snowy Mountains Engineering Corporation Foundation. Monthly working bees were held. Despite setbacks, including total destruction by bushfire in 2002, “Fred’s nursery” proved to be a crucial part of FoC’s operations until it was wound down in 2007 after lightning strikes took out the automatic watering system.

Community awareness

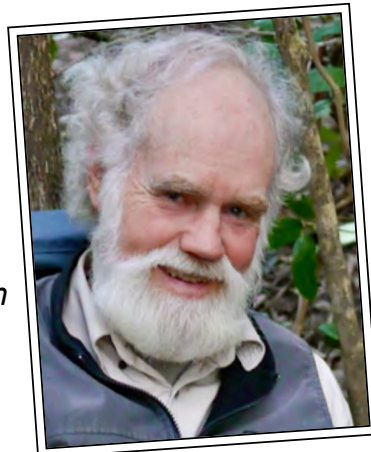
FoC also set about raising community awareness about the problem of willows. The first of sixteen newsletters was produced in June 2001 by volunteer Simone Cottrell. Editions from 2003 onwards were produced by Lyn Partridge.

Moving downstream

Back on the river, in 2001 and 2002 FoC paid attention to the serious infestations of poplar, lantana (*Lantana camara*), cape ivy (*Delairea odorata*) and other weeds at Colo Meroo, near the downstream end of the National Park. The site was used as a base for treating not only those weeds, but also nearby willows. Much was achieved over a number of weekends, but a dispute developed concerning access through a neighbouring property, and that facet of FoC’s work had to be abandoned.



Lyn



Ian

Helen



The source of the willows

Meanwhile, there had been a new revelation. In autumn 2001 a party of NPWS staff and FoC volunteers had completed a multi-day bushwalk to survey the Wolgan and Capertee Rivers, which feed into the Colo. Few willows were found, and no black willows. It was concluded that the remote infestations of black willow on the Colo were not derived from plant material moving downstream from the catchment, but from seed blown from the extensive infestations in the wider landscape, including the settled parts of the river downstream and much of the Hawkesbury-Nepean River.

This meant that in order to manage the willows within the National Park it would be necessary for FoC to turn some of its attention to willows along the river downstream, through the private lands. The willows there would be much easier to access, but from the legal viewpoint it would be much more complicated. The group decided to start dialogues with the Hawkesbury City Council, NSW Government agencies and private landholders.

Work commenced on the “downstream” willows in 2003, concurrently with the ongoing work in the National Park. Progress was slow at first as some land-holders regarded the group and its aims with suspicion, especially when they thought it was yet another government agency. However, with persistent community awareness activities by FoC—by then a Landcare Group—99 of the 102 landowners from Upper Colo to the Hawkesbury agreed to having the willows on their stretch of the river treated. Critical to this achievement was the determined lobbying and networking by FoC member Jeff Cottrell, aided by local residents Trevor and Kathleen Ward.



A busy day on willows in the private lands

Sue



Paul



Robyn



After a delay of several months brought about by a major bushfire, the fifth WOW took place back up in the gorge in April-May 2003. With virtually all mature willows in the Park eradicated, the emphasis shifted towards careful survey and monitoring of emergent willows, and also the survey and treatment of other weeds. About the same time, several volunteers embarked on a foot expedition along Wollemi Creek and some of its tributaries. Only two willows were found there.

By April 2004, when the first Environmental Trust grant concluded, FoC was able to report not only that its immediate objectives within the National park had been substantially met, but that nearly all mature willows from the Park boundary down to the Upper Colo bridge had been dealt with. That meant that a river length of some 80 kilometres had been treated, not counting the work on the tributaries of the Colo.

The second grant

Later that year FoC applied for a second three-year Environmental Trust grant, to pay for helicopter-supported WOWs in 2005 and 2007, and various other expenses. A grant of \$39,700 was awarded in February 2005.

The 2005 WOW went ahead in March. Apart from a few willows, a variety of weeds were treated, including a cape ivy patch at the very remote Girribung Creek. The WOW planned for April 2007 was, however, cancelled due to the very low flow in the river. It was held in November 2007, and started at Canoe Creek—further down than previous WOWs. Three two-person inflatable canoes were used. These had been purchased from the grant and could, with some effort, be portaged to the river down the rough track from the Grassy



Some excitement during the 2007 WOW



Ken



Ros



Liz

Hill management road. The rafts that were previously used had to be inserted by helicopter. Fewer people could be transported with the inflatable canoes, but fewer people were needed due to the greatly reduced treatment work. On this 2007 WOW the party was accompanied by a tireless contractor undertaking fauna surveys for NPWS.

By late 2006 FoC's primary treatment of willows was completed down to the Hawkesbury River. The group had then removed around 17,000 mature willows and seedlings from the Colo River system.

There was however more to be done. There was a proliferation of crack willow (*Salix fragilis*) on the Wolgan River emanating upstream from Newnes—a problem still receiving occasional attention by the group today. Also, many black willows were still flourishing on a natural feature near Upper Colo known as Gaspers Lagoon. Willows had been successfully eradicated from other lagoons in the area as early as 2003, but Gaspers Lagoon was proving intransigent: floating rafts of mud and vegetation, complete with numerous nests of small black ants, meant that access to the willows was difficult and somewhat unpleasant. However, it was essential that it be undertaken if re-infestation of the whole river was to be avoided. Several productive treatments were conducted, with the participants all enjoying a thorough mud-bath. However, in 2020 more work is needed there.

Willow Warriors

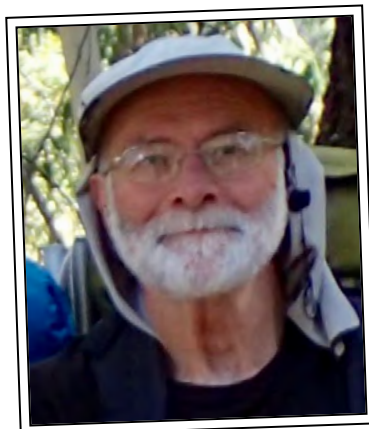
At the end of 2005 FoC had to decide whether to remain focused on willows and thus move on to catchments other than the Colo, or whether to stay with the Colo and take on the non-willow weeds. The latter path was chosen, while recognising that some members, notably Jeff Cottrell, Fred Wood, Richard McGoogan, Ian and Lyn Partridge, Joanna Willmot and Sarah Schroder were also becoming active with willows elsewhere through their new independent group, Willow Warriors. That group would henceforth also take over most of the ongoing willow control on the Colo below the National Park.

In 2016, however, after consideration of the groups' mutual interests, and to simplify administration, the Willow Warriors ceased to exist as an independent entity and became part of FoC. So that this could happen, FoC formally broadened its objectives to allow for conservation work in any catchment in the state, while recognising that its core interest was conservation in the remote parts of the Colo catchment.

Gary



Ken

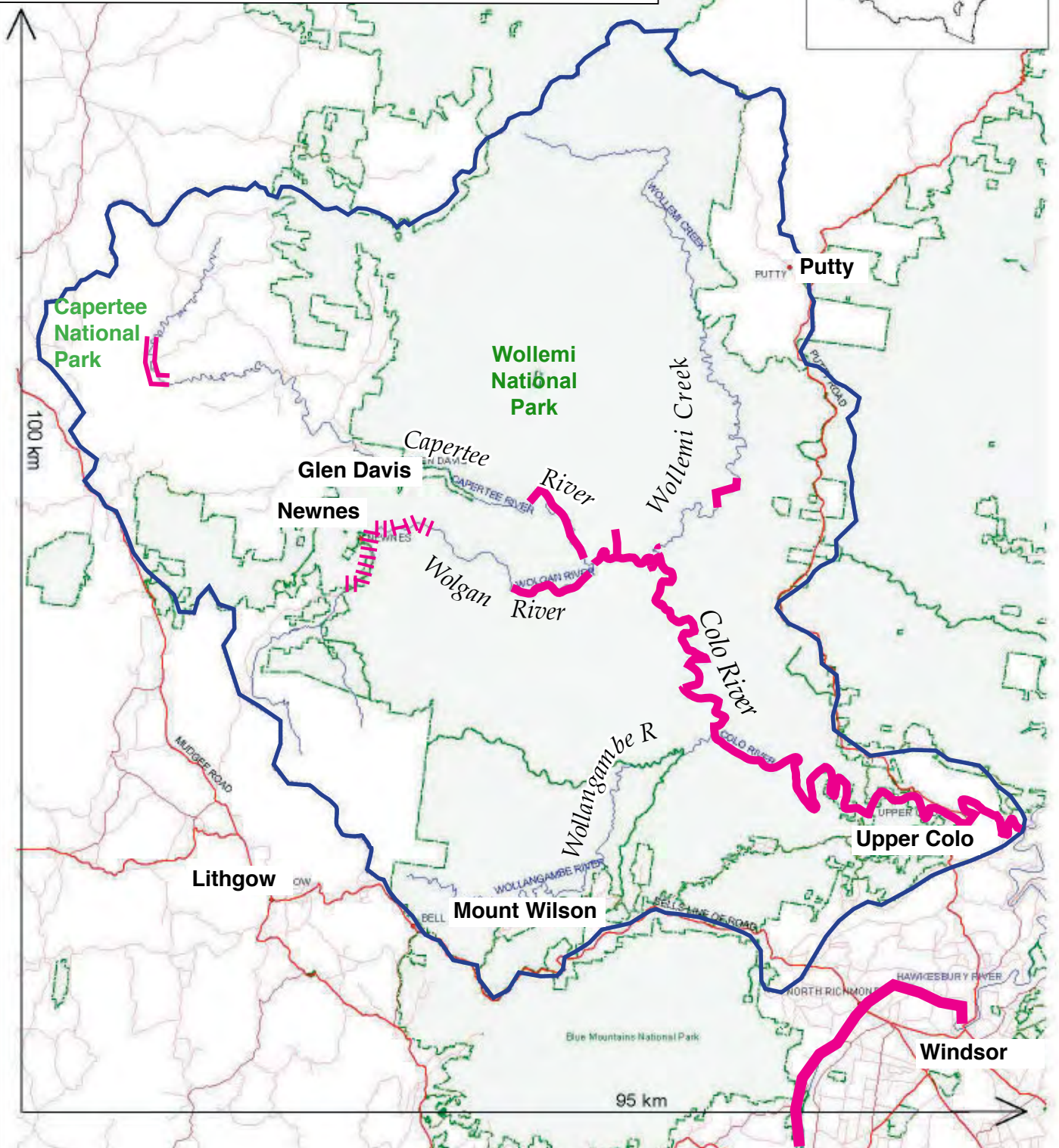


Yant





Willow control

- Black willow 
- Crack willow 
- Other willow 




Colo River & its catchment


 NPWS Estate
 Colo River Catchment Boundary

Scale 1:375 000 5000 0 5000 Metres

Copyright 2004, National Parks and Wildlife Service, New South Wales
 This map is not guaranteed to be the most accurate or up to date.
 The NPWS National Parks and Wildlife Service and its project
 staff do not accept any liability for any loss or damage caused by
 the use of this map.

The NPWS is now part of the Department of Environment and Conservation (DEC)



 Environmental TRUST

This project has been assisted by the New South Wales Government through an Environmental Trust

Map prepared by Saskia Hayes, NPWS GIS Officer, June 2004

Non-willow weeds

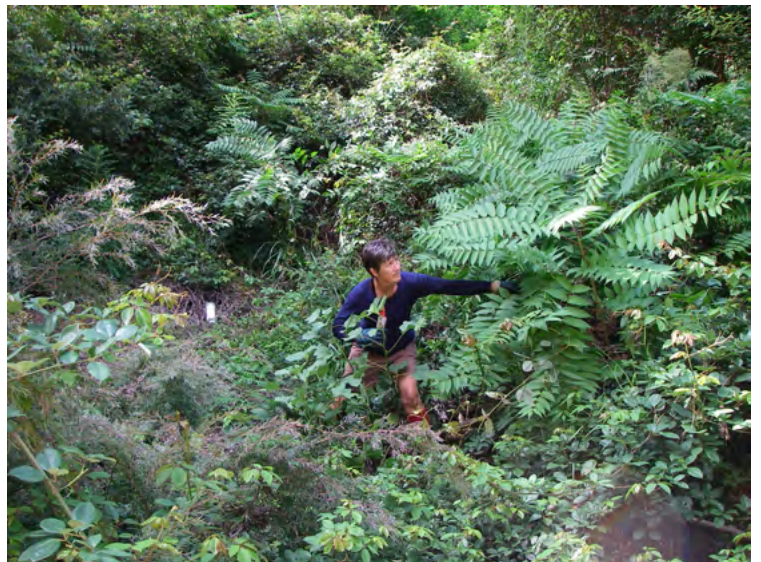
In its earliest years FoC became concerned about other significant weeds being encountered. These included cape ivy along the Wolgan and at scattered sites down the Colo; tree of heaven (*Ailanthus altissima*) scattered throughout; and lantana on the Colo at (and downstream from) Tootie Creek. The more accessible of these—cape ivy at Mount Townsend Bend, and the lantana—started to receive regular attention on weekend activities, but attention to the remainder was largely opportunistic, in conjunction with the remote willow work.

In 2004 FoC held a weekend in Putty, assisting a local landholder with the control of small leaf privet (*Ligustrum sinense*) along Putty Creek, which flowed through her property. This turned into an annual event—and was to acquire more urgency in 2014 when a small outbreak of the weed was discovered on the Colo near the Wollangambe junction: Putty Creek is a tributary of

Wollemi Creek. Although the weed has since been found on the Capertee River, no further sign has been found on the Colo, or on Wollemi Creek. The control work at Putty has continued annually in the hope that that will continue to be the case.



Cape ivy at Mount Townsend Bend (above) & tree of heaven near Pinchgut Creek (below)



Greg

Jim



Deidree



Becoming more strategic

In 2008 a party of four FoC volunteers walked down the Wolgan and up the Capertee Rivers. They found few willows but were very concerned about the amount of cape ivy and tree of heaven. They also discovered many honey locust trees (*Gleditsia triacanthos*) and a patch of pampas grass (*Cortaderia sp.*) on the Capertee.

It was a call to arms. FoC decided to further increase the effort to control the non-willow weeds. Its activities became less ad hoc and more strategic, and monitoring was improved through comprehensive site recording and data collection. The availability of more sensitive GPS instruments ensured that weed sites hidden amongst native vegetation could be reliably revisited to ensure proper control and eradication. While the term “WOW” was still applied to trips undertaken by inflatables below Canoe Creek, FoC developed other regular activities tuned to different parts of the rivers. A third grant, of \$28,580, was awarded by the Environmental Trust to cover expenses in the period 2009-12; some of that went towards the last helicopter-supported WOW, in February 2010.

The Colo Colossus

The inaugural “Colo Colossus” was held over seven days at Easter 2009. It involved a total of eleven volunteers and two rangers walking their way down from the end of the management road in the Capertee, to the Colo and thence to Wollemi Creek, where they walked out to be picked up on the Culoul Range. On the way, some of the volunteers made a side trip up the lower Wolgan. An enormous amount was achieved, and the momentum was sustained for several years, with a Colossus held in most



Participants in the first Colo Colossus, 2009. Four of the participants were from Tasmania and Victoria, being drawn from the Tasmanian SPRATS group.



Alexa



Jim



Keirilee



Scenes on a Colo Colossus. Falling into quicksand is a nuisance, and sometimes alarming.

autumn and spring seasons, starting down either the Capertee or the Wolgan, or both. The party sizes were shrunk to eight volunteers, as there was less need for people power: the emphasis turned to competent vigilance and mopping up.

Since 2015 there has only been one Colossus each year, or none at all, because the more remote weed sites have mostly been eradicated and the remaining sites of concern are logistically easier to deal with by “down-and-back” bushwalks along the Wolgan and Capertee Rivers. These have been dubbed the Wolgan Wallop and Capertee Caper.



Participants on the 2015 Colossus, including one Tasmanian volunteer from SPRATS, posing by a young honey locust



Greg



Ellen



Liz

In the heart of the gorge

From 2004, several cape ivy and tree of heaven sites at Boorai Creek and Pinchgut Creek in the heart of the Colo gorge were being accessed by either rugged bushwalks or multi-day airbed trips. After a while however it was obvious that treatments of these weeds should be more regular.

In 2010 FoC purchased a number of revolutionary lightweight one-person packrafts from the 2009-12 Environmental Trust Grant. These were considered safer and faster than lilos, and replaced the heavier inflatables previously used for WOW trips when a lot of weeding gear had to be carried. Experienced bushwalkers could carry packrafts to or from a variety of points on the river using known (though rugged) routes, and they removed any need for helicopters.

The packrafts proved their worth. They were used extensively on activities everywhere downstream from near Wollemi Creek, and once for a survey of the Wollangambe, but their use on the more remote parts of the Colo is only occasional now because there are few significant weeds to be found there. The cape ivy and tree of heaven sites in the Boorai Creek – Pinchgut Creek area appear to have been eradicated. It is four years since a willow has been seen in the Colo gorge, though another check of the river is now due.

For all their advantages, a packraft was involved in the most memorable event in the history of FoC. In February 2011, while drifting through a seemingly innocuous rapid upstream from Pinchgut creek in a packraft, Carol Isaacs was sucked into a tight strainer and became completely submerged under some boulders. She would have remained trapped below water amongst the boulders had it not been for the quick action of others in the party, particularly a new volunteer Bob Dennerley.



Portaging a packraft



Kelvin



Brent



Su Li

The Wolgan Wallop

The inaugural five-day Wallop was held in the spring of 2013. It was designed to control and hopefully eradicate cape ivy outbreaks in the Annie Rowan Creek region of the Wolgan, by paying more attention to the area than the Colo Colossus was able to do. These events became biennial, usually over four or five days. The results have been excellent, though the work is ongoing.

In 2018 the scope of the Wolgan Wallop greatly increased. Control of cape ivy on the extensive Luchettis and Binnings Flats—the probable source of all infestations further down the river—had previously been undertaken by contractors, but funding for that work had ceased. FoC decided to take on that work, in addition to controlling the more remote patches further down. Two comprehensive exercises have taken place, and more are envisaged, though the recent drought, fire and flood—and the subsequent burgeoning of many native and lesser weed species—mean that the status of the infestations is currently uncertain.



Happiness is finding no cape ivy!

Aside from cape ivy, weeds targeted on the Wolgan Wallops have included crack willow, tree of heaven, inkweed, silky oak and Chinese celtis.

The Capertee Caper

Aside from the Colo Colossus, several walks have been conducted along the Capertee River within Wollemi National Park. Some of these have concentrated on the upstream parts around Coorongoba, while others have proceeded as far down as Gospers Creek or further. A variety of weeds have been targeted, including tree of heaven, honey locust, moth vine, small and broad leaf privet, tree tobacco (*Nicotiana glauca*), common fig and silky oak.



Phil



Doug



Enmoore

Tootie Tootles, Dead Wallaby Hops and Townsend Benders

Early in the life of FoC, large patches of cape ivy were identified at Mount Townsend Bend, six kilometres upstream from Colo Meroo. There were more patches further down, but it was decided to attempt control of the patches at the Bend. Soon afterwards, lantana was discovered further up near Tootie Creek and this also attracted attention. In between, however, there were patches of moth vine and tobacco tree—both of which flourished profusely in the wake of an unfortunate backburn conducted during the State Mine Fire in 2013.

Since then, regular activities by the above names have been conducted in an effort to control all these weeds and, most importantly, to prevent them advancing further up into the Park and Wilderness. The activities have been from three to five days in duration, but always encompass a weekend so there is the option for volunteers to participate only for the weekend. The activities have been a popular social activity for new and old volunteers alike,



Participants in the 2015 Dead Wallaby Hop



Participants in a 2019 Kowmung survey, gathered around a young red cedar being strangled by moth vine



Neil



Jan



John

particularly when a shared “camp-oven dinner” is organised.

Mount Townsend Bend has come to represent something of a boundary for FoC. Further downstream, closer to the National Park boundary, the incidence of non-willow weeds is prolific, and beyond FoC’s resources—especially since vehicular access to Colo Meroo was prevented.



A wet camp oven dinner at Tootie Creek, 2016

Capertee National Park

In 2017 FoC was invited to stay for a weekend at the Port Macquarie homestead at Capertee National Park, as a reward for its efforts. It has now become an annual event, and is an excellent social occasion suitable for all FoC members. Weeding is conducted along the Capertee River and its tributaries within the Park. Initially the main target was tree of heaven, but after it was realised that the river was being invaded by common fig (*Ficus carica*) from the large mature trees in the area, attention has also been turned to the control of figs.



Five volunteers to treat a fig!

Kowmung River

In early 2019, after discussions with Local Land Services and NPWS, FoC decided to deploy its remote area skills to conduct a weed survey of the Kowmung River, a declared Wild River in



James



Steph



Sarah

the Kanangra-Boyd National Park. Four sections of the river were surveyed, and a further three remain. A number of willows were encountered and treated. Blackberry patches were recorded. Other weeds were recorded, but the most concerning discovery has been several kilometres of severe infestation by moth vine.

The current closure of the area due to the fires and floods has halted further survey, and any thoughts about possible treatment of the moth vine.



River crossing technique, Kowmung River

Other Blue Mountains Rivers

Within the last three years FoC has conducted willow treatments along the lower parts of Erskine Creek. In 2017 a weed survey was conducted on-foot along part of the Nattai River.

Since 2016, FoC has continued with projects previously conducted independently by Willow Warriros. These projects include:

- Willow control on the Colo River downstream from the National Park.
- Willow mapping and tree of heaven control on Wollondilly River between Goodmans Ford and Burnt Flat.

Other rivers and locations

A number of other activities previously undertaken by Willow Warriors when it was independent are still in operation. These include:

The Hawkesbury-Nepean

Activities have been held aimed at controlling black willow along the Nepean River between Penrith and the Hawkesbury at Richmond. Aside from improving the local environment of those waterways, the aim is to help prevent the re-infestation of the Colo River which will otherwise arise from wind-blown seed. Around 200 willows have been treated, but there is much more to be done.



Paul



Geoff



Julie

Yellomundee (Shaws Farm)

Volunteers have conducted a number of bushcare activities at Shaws Farm at Yellomundee Regional Park, in support of the bushcare and cultural burning project being undertaken by the traditional Aboriginal community.

Shoalhaven River

Volunteers have continued with packraft-based surveys and treatment of willow and tree of heaven. Surveys in the Welcome Reef area and from Badgerys to Lake Yarrunga have resulted in most of the Shoalhaven river below Oallen Ford being mapped for woody weeds. Since December 2016 there have been four weeding activities which have largely finished removing all willows along 29km of the river between Horseshoe bend and Badgerys. During this time more than 350 willows have been treated, including a major infestation around Long Point. Future work will focus on more remote sections of the river and treatment of major tree of heaven sites in conjunction with the Coast & Mountains Walkers club and hopefully contractors.



*Hey there's a willow over there!
Paddling in the Shoalhaven.*

Murrumbidgee River

In 2019 volunteers assisted the Upper Murrumbidgee Demonstration Reach (UMDR), a project hosted by Bush Heritage Australia, by demonstrating and helping with the treatment of willow and maple between Colinton and Angle Crossing.



Monica



Christine



David

ACHIEVEMENTS

Weeds

Friends of the Colo succeeded in its original objective to control black willows along the Colo, and additionally has made impressive progress on other weeds. The achievements in weed control are detailed in Appendix 1.

Natives

FoC makes a practice of producing comprehensive and timely reports on every activity. These are provided to the relevant ranger. More recently, every report produced in the twenty-year life of FoC has been provided to the NPWS database through the Saving Our Species program.

Among other things, the reports record significant flora and fauna observations, often in areas not normally visited by NPWS staff or scientists. Some of these recordings have been added to NSW BioNet by FoC. Animal species include koala, brush tailed rock wallaby, platypus, diamond python and various owls.

Several special plants have been identified and recorded, thanks to botanists Tony Rodd (a member in the early years) and Jan Allen (a more recent member). These include the endangered *Gyrostemon thesiodes* (at Colo Meroo); the vulnerable *Velleia perfoliata* (by the T3 track); the little-known but fairly common *Adriana tomentosa* (Colo, Capertee and Kowmung rivers), and *Alectryon subcinereus* (Capertee National Park).

The volunteer model

As further detailed in Appendix 2, over its twenty years around 195 volunteers have participated in some 250 field activities—not counting nursery-related activities. Many of these people only contributed a day or two. Most of the effort in the field has been put in by around thirty volunteers.

FoC has contributed around 4300 person-days of voluntary work in the field—again, not including the nursery. When nursery activities are included, as well as a large number of extraneous volunteers such as TAFE students, Macmasters Beach Surf Lifesaving Club junior



Botanising during a Colo Colossus

volunteers, detainees and corporate volunteers who were supervised on various occasions, the figure is probably closer to 7500 person-days. Assuming 6-hour days and \$30 per hour, that amounts to a contribution of around \$1.35 million to the environment.

There has been little cost to the NPWS. Although staff accompanied the volunteers on earlier activities, the success of FoC in planning and managing its own activities, and the high-level skills of the volunteers, have meant that field participation and supervision has been limited to occasional logistic and administrative support by Rangers Vanessa Richardson, Keirilee James, Paul Glass, Dave Noble, Neil Stone, Adam Bryce and a number of field staff.

The conservation outcomes could not have been achieved by any other means. NPWS in-house resources are limited, and the cost of employing suitable contractors in such remote challenging terrain is prohibitive.

The key to FoC's success is that its activities have been planned, managed and reported on by a core of volunteers with a diverse background and skill base, a strong sense of ownership of the project and perhaps above all a love of the area they operate in. Furthermore, the group has a strong sense of community arising from its endeavours.

Even those volunteers who have only contributed a few days have acquired a heightened connection with the area. Many came to the program as skilled recreationists with little or no prior bush regeneration experience, but the training and experience they have received has opened their eyes to the conservation cause. Many have been inspired to volunteer on projects elsewhere.

FoC's success on the Colo has led to the formation of other adventure volunteer groups. Most notable of these is SPRATS, a volunteer group dedicated to the control of the sea spurge (*Euphorbia paralias*) on the remote Tasmanian south-west wilderness coast. This occurred after a party of Blue Mountains volunteers largely comprising FoC members were invited to conduct a pilot weeding activity there.

In 2005 Andy Macqueen wrote a paper describing FoC's model and explaining why it worked. He presented it at a meeting of the state's NPWS Advisory Committees in 2006, and in 2009 at a state government volunteers' conference at Darling Harbour.



Jeff Cottrell and Andy Macqueen with Ian Kiernan (Cleanup Australia), Tim Entwisle (Director Botanic Gardens), Environment Minister Carmel Tebbutt and Volunteering Minister Graham West. Darling Harbour, 11 June 2009.

Grants

Aside from the volunteer contribution, in its status as a community group FoC has successfully attracted substantial grant funds for its work. While most of these funds have been used to provide logistic support for volunteer operations (such as to pay for helicopter time or purchase packrafts and other equipment), some have been used to employ contractors to augment or support FoCs work.

Recognition

All this has not been without its rewards. Apart from the personal satisfaction and camaraderie arising from doing a job well, there has been formal recognition. In 2003 FoC won the inaugural “Weedbusters Award for Excellence” for the state of NSW, while Fred Wood received a bronze Landcare Legends award, for service not only with FoC, but on other projects in the Hawkesbury area.

This was followed by Hawkesbury City Council’s Environmental Group of the Year award in 2004, and Lithgow Council’s Environmental Merit Award in 2005.

In 2008 Planning Minister Kristina Keneally presented the group, represented by president Carol Isaacs, with the NSW Heritage Volunteer Award; at the same ceremony Andy Macqueen received an individual award for his efforts with FoC as well as his broader volunteer service, and spoke at the event on behalf of all the volunteers present. In 2019 Andy was awarded the Medal of the Order of Australia (OAM).

In 2015, FoC was a finalist in the NSW/ACT Regional Achievement and Community Awards.

Meanwhile, the willow-treating achievements of FoC and its sub-group Willow Warriors have become well-known amongst relevant government agencies. Jeff Cottrell contributed to the National Willow Task Force, advising on willow treatment in remote areas.



Carol Isaacs receiving FoC’s Heritage Volunteer Award from Planning Minister Kristina Keneally, in 2008

WHERE TO FROM HERE?

Friends of the Colo's fifteenth anniversary report (2015) came up with a five year plan which took into account some of the challenges the group faced. Those challenges included the need for generational renewal in the membership, and the fact that it is harder to enthuse new volunteers when a project has been so successful that there are few remaining challenges in the targeted area to become excited about.

The plan drew attention to the group's original object "to facilitate the conservation of Bushland in the Colo river Catchment and its environs", and proposed that in the five years to 2020 the group should concentrate on continuing with those weeding objectives that were considered to be achievable, with particular emphasis on protecting the values of its past work.

The 2015 report also posited that beyond 2020 the future of FoC was uncertain, and that the group should aim to engage volunteers with the potential to further its objects beyond that time.

By and large FoC's activities over the subsequent five years have followed that plan, though a number of complicating factors have emerged:

- ◇ The Willow Warriors group joined FoC, and the group's objects were broadened to include work in catchments other than the Colo.
- ◇ Unexpected weather events (both drought and rain) in 2018 and 2019 created havoc with the activity program.
- ◇ Following the 2018 withdrawal of Local Land Services funding that had previously been used to engage a contractor to control cape ivy on Luchettis and Binnings Flats, FoC decided to take on that work.
- ◇ In 2019 the group decided to embark on a weed survey of the Kowmung River, while making no commitment to engage with any weed management work there.
- ◇ The group has taken on work at Capertee National Park.

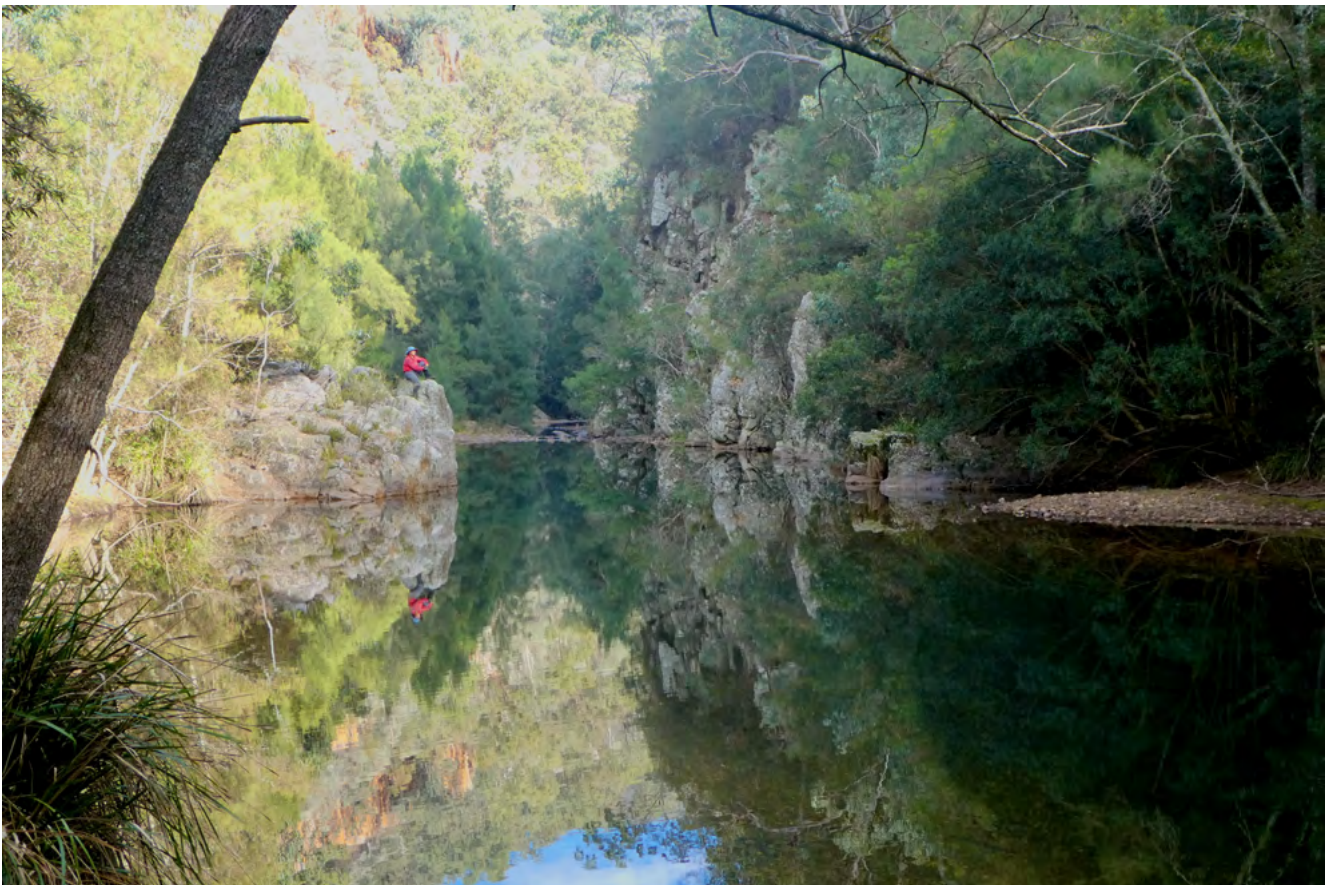
These factors did not materially impact on FoC's existing commitments in the Colo catchment, partly because the weeds in most of the sites concerned were much reduced and did not require as much attention as they used to. Furthermore, two additional activity leaders have stepped forward (Deidree Noss and Su Li Sin), and there has been a small increase in active membership, especially with respect to volunteers who are able to participate in weekend activities.

The future is now far from clear, however. The 2019-20 fires and floods have impacted greatly on all the rivers that FoC is concerned with. The implications for the weed sites it has been dealing with, and for the emergence of new weed issues, will not be fully known for some months.

Moreover, although a number of enthusiastic younger people have become active in the group, the demands of today's world mean that it may be challenging for such people to find space in their lives to commit to the necessary managerial roles and conduct the multi-day activities that are inherent in remote-area conservation.

For those reasons, it is impossible at the time of writing to be definitive about the road ahead, except to say that priority must be given to protecting and enhancing the value of FoC's past achievements. The nature and scope of any new endeavours must be the subject of forthcoming deliberations.

For the time being however, FoC will continue to operate with the enthusiasm and dedication that it has displayed for the last twenty years, particularly with regard to its efforts in more remote areas.



Bulga Denis Canyon, Kowmung River

Appendix 1

WEED CONTROL ACHIEVEMENTS

In its first twenty years FoC has undertaken work on the following noxious and environmental weeds along the Colo and its tributaries.

Willows

Over 6000 Black Willow (*Salix nigra*) have been killed on the Colo within the Wollemi National Park (mostly by 2003) and over 11,000 further down the Colo (mostly by 2006). Treatment usually involved application of Glyphosate Biactive using closely-spaced chisel cuts or, in the case of small specimens, by cutting or scraping. The river is now substantially clear of this species except for the occasional emergent.



Treating crack willows at Barton Creek

Thousands of stems of crack willow (*Salix fragilis*) have been treated on the Wolgan River (mostly upstream from Newnes) and on Barton Creek. Substantial control has been achieved.

Other willow species including white willow (*Salix alba*) and tortured willow (*Salix matsudana*) have been encountered and treated in small numbers.

Away from the Colo catchment, hundreds of invasive willows have been treated on the Nepean below Penrith, 13 on Erskine Creek, 26 on the Kowmung River, and at least 350 on the Shoalhaven River.

Tree of heaven—*Ailanthus altissima*

FoC has treated about 9000 stems of this weed along the Capertee, Wolgan and Colo Rivers within Wollemi National Park, generally by the application of Glyphosate Biactive by aggressive scraping and painting. Out of some 110 patches found, about 70 have been eradicated so far. Most of the remainder are close to eradication, though several patches only discovered in the last two or three years will need further attention. The 2020 floods may complicate progress, where patches are located within the disturbed zone.

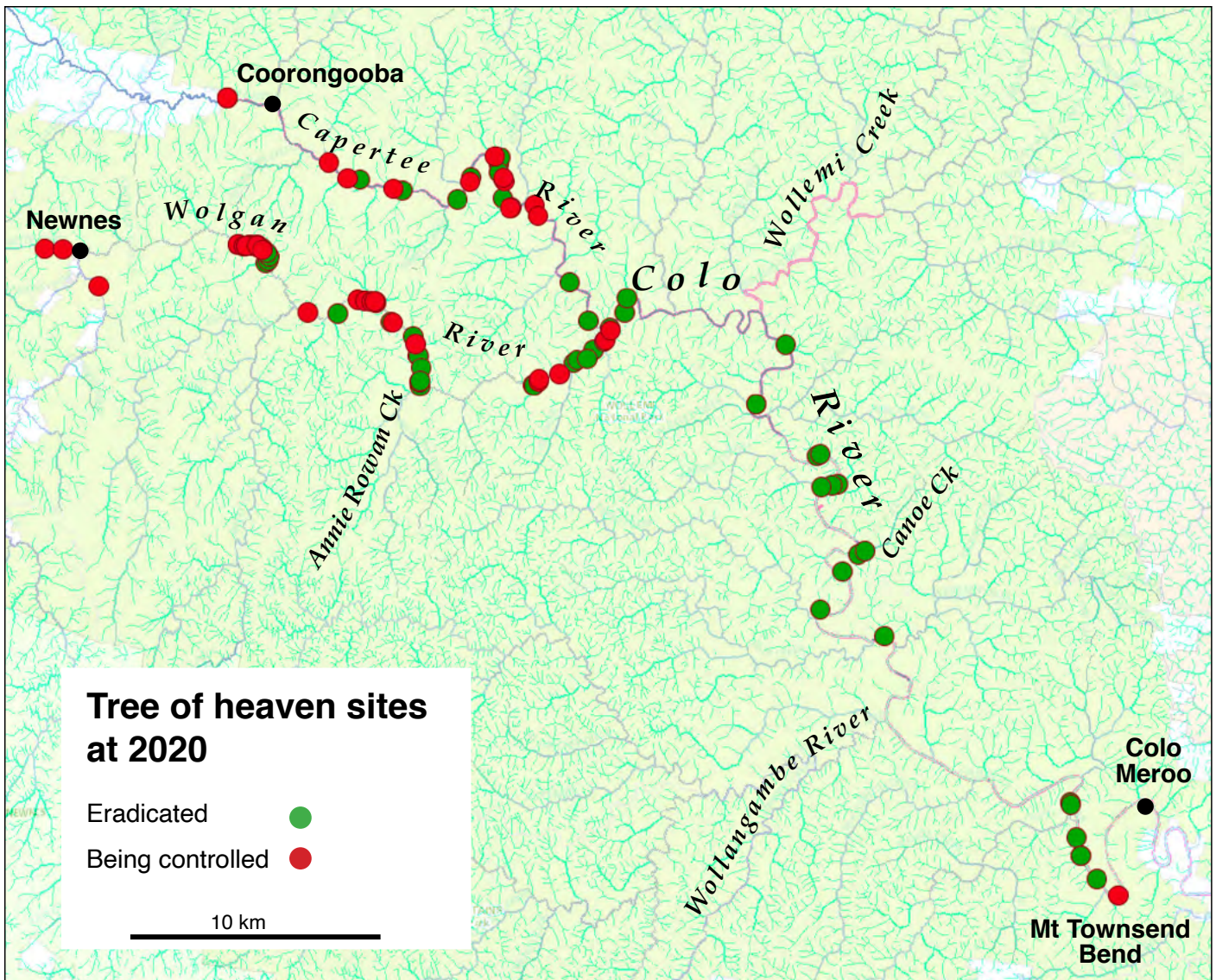
Since 2017 about 2000 stems have been treated in Capertee National Park, mostly at sites previously treated by contractors along the Capertee River, Deadmans Creek and Oaky Creek. Most of the sites will need a lot more follow-up.



Treating a stem of tree of heaven

The group has also mapped tree of heaven along the Shoalhaven River.

The substantial amount of data collected by FoC confirms that tree of heaven is best treated in warmer months, and also suggests that the best results are obtained in late summer or early autumn.



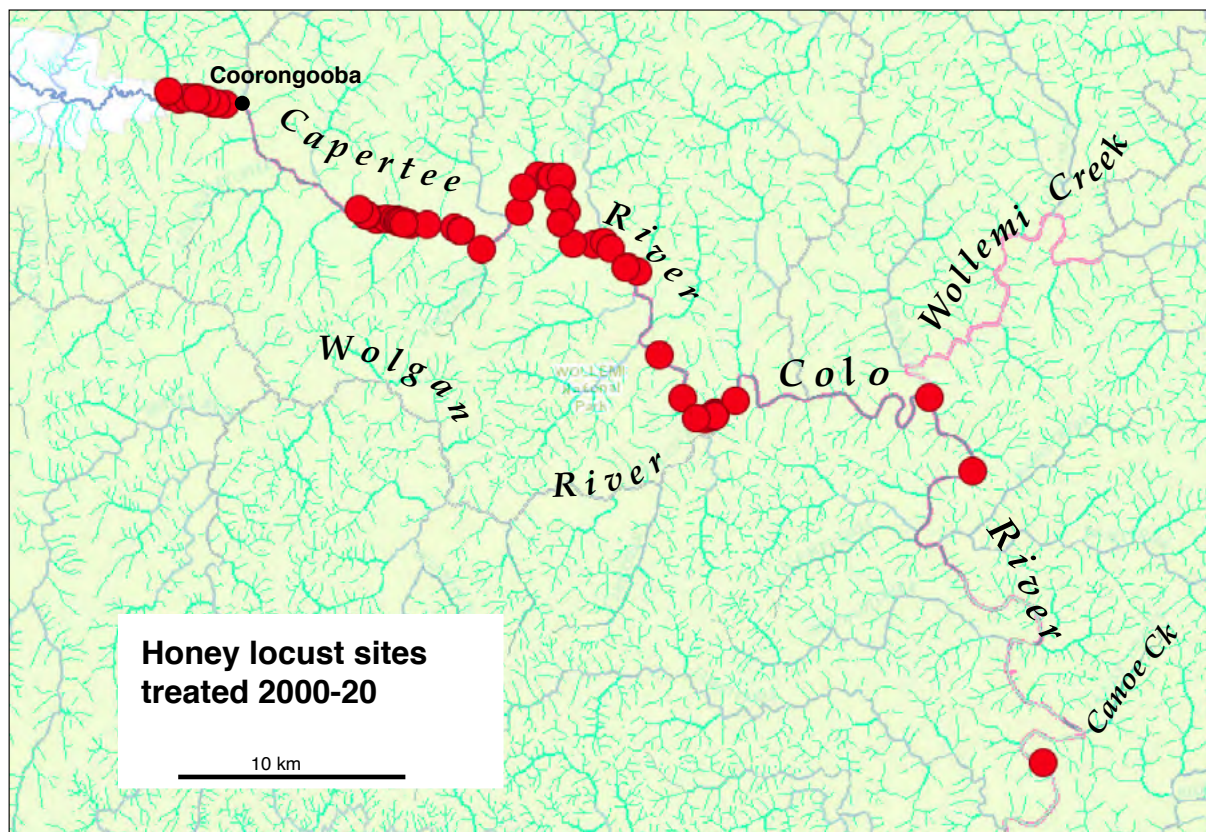
Honey locust—*Gleditsia triacanthos*

This environmental weed has dangerous spines, but it readily hides amongst native wattles. About 170 stems have been found at some 90 locations, mostly along the Capertee River in or near former grazing areas, but several have been found along the Colo—the most downstream specimen being three kilometres below Canoe Creek. They varied from young plants to huge old trees, but all those found have been treated successfully using Glyphosate injection. None has been found along the Wolgan or other Colo tributaries.

FoC has established local control, with no large mature trees being found since 2013. However, many juveniles are likely to emerge yet, and on-going re-infestation will occur from the private lands upstream until the plant is controlled there, as the weed is now mainly spread by seed being washed downstream.



A large honey locust tree, and the treatment applied to it



Lantana – *Lantana camara*

With the assistance of contractors who undertook some initial knockdown, FoC has effectively controlled and contained substantial lantana infestations it discovered along a 3-kilometre part of the Colo near Tootie Creek. Control is continuing, with less than 100 plants being found each year. However, surveillance will be required indefinitely, particularly if the weed is to be prevented from moving further up the gorge or further up the hillsides. Treatment is by cutting and painting with Glyphosate or, in the case of seedlings, by pulling.

The fire and flood of 2019-20 may cause this weed to flourish in the area.

Tobacco tree— *Solanum mauritanium*

Since 2012 about 15,400 stems have been treated at a major site centred on the right bank of the Colo just upstream from Mount Townsend Bend. Back-burning for the State Mine Fire in the spring of 2013 brought about a major germination event, and it is expected that the 2019-20 fire may have done the same. Control will not be achieved for some years. Treatment is by cutting and painting with Glyphosate or, in the case of small plants, by pulling.

Pulling a tobacco tree



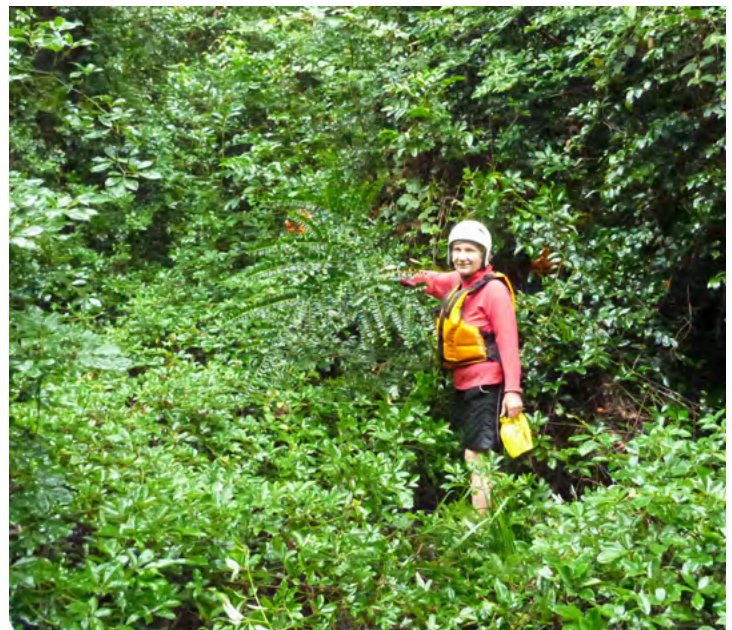
Small leaf privet— *Ligustrum sinense*

Since 2004, on an almost annual basis, FoC has been assisting with privet control along about 20 kilometres of Putty Creek through State Forest and private lands. The objective has been to protect the natural values of Wollemi Creek and the Colo downstream, while supporting conservation-minded residents. The weed is now vastly reduced, but ongoing control is required,

Fortunately no privet has been found further downstream, except one unexpected small outbreak on the Colo near Wollangambe River. That outbreak was dealt with and nothing further has been found on the Colo.

In 2015 a small but mature patch was discovered on the Capertee River downstream from Gaspers Creek, and the following year several were discovered not far down from Coorongooba. All have been treated.

Because this weed is not always easy to spot amongst *Backhousia myrtifolia*, ongoing vigilance is required.



Discovering privet on the Colo

Broad leaf privet - *Ligustrum lucidum*

FoC has treated two mature specimens upstream from Coorongooba, and several at Newnes near the locked gate. None have been found in the more remote parts of the rivers, though like small leaf privet it is hard to spot.

Common fig - *Ficus carica*

FoC is working on the control of numerous common fig in Capertee National Park. Some are very large and some have invaded the river. Several others have been treated near the Park entrance at Coorongooba.

Silky Oak – *Grevillea robusta*

This Australian plant is not native to the western side of the Blue Mountains, and is quite invasive in the area. FoC has treated numerous trees in the Newnes and Coorongooba areas, and some further down the Wolgan.

Tree tobacco - *Nicotiana glauca*

Two specimens of this weed have been found and treated in the remote parts of the Capertee River, both being in the zone that was burnt during the Girribung Fire. Several other specimens have been treated within Capertee National Park.

Cape ivy – *Delairea odorata*

Extensive patches of this environmental weed were identified and “knocked down” by NPWS in the 1990s, along the Wolgan at Luchettis Flats (between Newnes and Rocky Creek) and the Binnings Flats (between Rocky Creek and Annie Rowan Creek). These are believed to be the source of infestations all the way down the Wolgan and Colo through the Park.

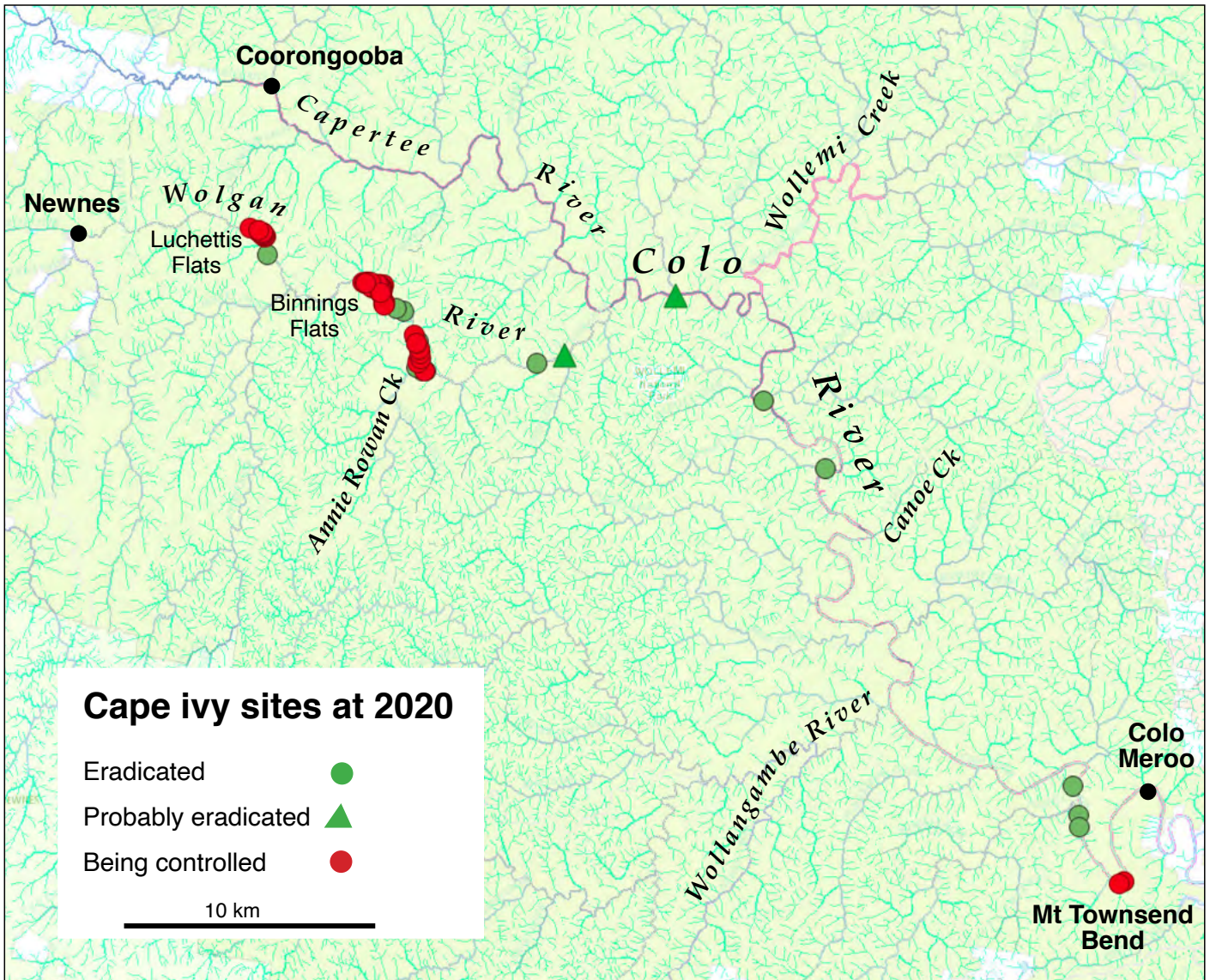
Early in its life FoC started to control two large patches at Mount Townsend Bend, six kilometres upstream from Colo Meroo. The more upstream of these two appears to have been eradicated, while the other has remained problematic.

Since then FoC has located and worked on 22 remote cape ivy patches between Binnings Flats and Mount Townsend Bend. Of these, eight are very remote, being downstream from Annie Rowan Creek, and most if not all are believed to have been eradicated. This has only been achieved by great persistence, involving painstaking checking and follow-up once or twice every year over many years. Of the 14 patches near and upstream from Annie Rowan Creek, nine are believed to have been eradicated while work continues on the remaining five.

Complete control or eradication at the abovementioned extensive infestations at Luchettis and Binnings was not achieved despite ongoing work by NPWS and a contractor. Funding for that work ceased in 2018. Recognising



Treating cape ivy at Mount Townsend Bend



its importance, FoC decided to take it on, and so far two comprehensive treatments have been conducted.

The fire and floods of 2019-20 have greatly impacted the Wolgan and its riparian zones, as well as the flats, and the implications for cape ivy response and spread are as yet unknown. The same applies to the sites at Mount Townsend Bend.

Treatment has generally been by spray application of 1% Glyphosate. Care has been taken to avoid damage to uncommon species that are sometimes present, such as pencil cedar (*Polyscias murrayi*) and red cedar (*Toona ciliata*).

Moth vine—*Araujia sericifera*

Tens of thousands of stems of this weed have been treated between Tootie Creek and Mount Townsend Bend, mostly since 2012. The most upstream known patch, at Tootie Creek, is now well-controlled, thanks in part to assistance from contractors. As with tobacco tree, back-burning for the State Mine Fire in the spring of 2013 brought about considerable proliferation of moth vine, and this may occur again following the 2019-20 fire. On-going persistence will be needed to achieve effective control. Treatment is by scraping and painting with Glyphosate or, in the case of seedlings, by pulling.

FoC has also been controlling two small patches of moth vine in the Capertee gorge, and several minor outbreaks near the park entrance at Coorongooba.

Extensive infestation by moth vine has been encountered during the survey of the Kowmung, but no treatment has been proposed. It may be intractable. Such a state of affairs underscores the importance of controlling the relatively low levels of this weed currently in the Colo system.

Pampas grass—*Cortaderia sp.*

Two outbreaks were successfully treated on the Capertee River in 2009, using cutting and painting. Fortunately no further occurrence has been discovered. One clump has been treated on Erskine Creek.



Getting stuck into moth vine

Blackberry—*Rubus fruticosus*

Blackberry is frequently encountered on the Colo, Wolgan and Capertee, but generally at low levels in small, often hard-to-detect, outbreaks. Anecdotally, its incidence has not increased since at least 1971, and it does not appear to be a threat. The weed did not proliferate along the Capertee after Girribung Fire or any of several large floods which thinned the riparian vegetation. (Native raspberry (*Rubus parvifolius*) thrives much more successfully, much to the annoyance of passing bushwalkers.)

A greater incidence of blackberry has been seen on the parts of the Kowmung so far examined, with a number of larger patches being recorded.

A considerable amount of blackberry was found during the survey of the Nattai River.

FoC is not normally equipped to spray blackberry. However, small outbreaks are sometimes treated by scraping and painting, digging up touchdowns or cutting and painting boles with Glyphosate.

Trad—*Tradescantia fluminensis*

This weed is encountered in profusion at intervals down the Capertee and Colo Rivers, and in places on the Wolgan. FoC believes it is intractable, as effective control would need repeated treatments by armies of volunteers—and eradication at the source on private lands. On a brighter note, FoC has noticed that the weed is greatly reduced temporarily by large flood events and also by brush turkeys, lyre birds and possibly other animals. These agencies may to some extent overcome the ability of the weed to suppress regeneration of native species.

The CSIRO has been working on a biological control for this weed and FoC has been in contact with them about releasing this agent within the Colo River catchment.

Bridal creeper - *Asparagus asparagoides*

In 2019 FoC discovered small outbreaks of this Weed of National Significance by the Capertee River just inside the Park Boundary. Only limited treatment has so far been undertaken. The 2019-20 flood and the associated deposition of silt means that treatment will be problematic.

Madeira Vine - *Anredera cordifolia*

In 2019 FoC observed and reported a small patch of this weed of National Significance near the Capertee River just inside the Park Boundary. Infestations were also noted on the adjacent private land.

Cotton Bush - *Gomphocarpus fruticosus*

In 2019 five plants were treated, and the seed pods burnt, at Binnings Flats on the Wolgan.

Inkweed - *Phytolacca octandra*

This weed has been encountered on most rivers. Treatment has not been comprehensive, but over several years many plants have been pulled along the lower reach of Tootie Creek, where there has been significant infestation.

Other weeds

Other weeds encountered and treated include:

- ◇ Camphor laurel (*Cinnamomum camphora*) (Putty Creek)
- ◇ *Pinus radiata* (upper Kowmung area)
- ◇ *Celtis australis* (near Newnes)
- ◇ Introduced fruit trees (eg lemon, peach)
- ◇ Briar rose (*Rosa rubiginosa*)
- ◇ Introduced passionfruit vine (*Passiflora edulis*)
- ◇ Crofton weed (*Ageratina adenophora*)
- ◇ Caper spurge (*Euphorbia lathyris*) (at Coorongooba)
- ◇ Cotoneaster (*Cotoneaster frigidus*) (Newnes, and Capertee National Park)
- ◇ Poplar (*Populus sp.*) (Colo River)

Appendix 2

VOLUNTEER EFFORT

Friends of the Colo has had no paid staff. In the early years there was substantial support from the relevant NPWS Ranger, but since then the cost to NPWS has been small, being limited mainly to occasional vehicle support and the administration of NPWS volunteer procedural matters.

Until 2007 river-rafting guides were sometimes hired for WOW activities. On three occasions prior to 2010 contractors were engaged for specific off-park tasks beyond FoC's resources: these were funded by Riverbank Management Grants administered by the Hawkesbury Nepean Catchment Management Authority.

The following statistics apply to the period April 2000 to May 2020 inclusive. They are intended as a guide only. Surviving documentation of some of FoC's earliest activities is incomplete. Also, it is impossible to estimate the enormous amount of time put in by a number of volunteers "outside hours", managing the group, planning and reporting activities, managing equipment, applying for and managing grants, and so forth.

Willow Warriors data has been included for the period since the group joined FoC in 2016.

All Activities (including meetings, training activities and nursery-related activities)

- ◇ Number of activities – about 400
- ◇ Days of activity – about 850
- ◇ Volunteer person-days – about 7500 (including students etc)
- ◇ Volunteer hours – about 45,000

Field activities (not including training and nursery-related)

- ◇ Number of activities – about 260
- ◇ Days in the field – about 650
- ◇ Volunteer person-days – about 4300
- ◇ Volunteer hours – about 30,000

Management committee – current members

- ◇ Carol Isaacs: President (2002-)
- ◇ Deidree Noss: Vice President (2015-)
- ◇ Andy Macqueen: President (2000-02), Vice President (2002-15), Secretary (2003-)
- ◇ Jeff Cottrell: Treasurer (2000-)
- ◇ Phil Gane: Committee (2015-)
- ◇ Alexa Troedson (2018-)
- ◇ Gary Roberts (2019-)

Management committee – retired members

- ◇ Michael Hensen: Vice President (2000-02)
- ◇ Alan Lane: Secretary (2000-03)
- ◇ Fred Wood: Nursery Manager (2000-07)
- ◇ Ian Partridge: Committee (2001-17)
- ◇ Lyn Partridge: Committee (2001-15), Membership (2003-15)
- ◇ Joanna Wilmott: Committee (2003-09)
- ◇ Helen Cavanagh: Committee (2003-15)
- ◇ Yant Kong: Committee (2011-19)
- ◇ Jim Noss: Committee (2017-18)

Volunteers

About 200 individual volunteers have participated in FoC field activities, not including occasional volunteers from corporate groups, youth groups or other organisations. Nearly 90% of the effort has been put in by the 28 current and past volunteers listed below, all of whom have contributed over 30 days in the field. Some have contributed hundreds of field days: in particular Carol Isaacs, Jeff Cottrell and Andy Macqueen have each contributed well over 400. In the list, those marked with an asterisk have organised and led activities.

Currently active	Year started		
Jeff Cottrell*	2000	Kelvin Montagu*	2011
Michael Hensen		Liz Saunders	
Carol Isaacs*		Greg King	
Phill Isaacs		Ellen King	2012
Andy Macqueen*		Phil Gane	
Fred Wood*		Brent Roylance	2014
Helen Cavanagh*	2001	Su Li Sin*	
Robyn Hine			
Liz Macqueen			
Gary Roberts		Past volunteers	Active years
Ken Campbell	2006	Richard McGoogan	2000-13
Yant Kong	2007	Ian Partridge*	2000-16
Jim Lee	2010	Lyn Partridge	2000-16
Deidree Noss*		Tony Rodd	2000-04
Jim Noss		Greg Hausfeld	2007-17
Alexa Troedson			

Other volunteers who have become active within the last three or four years include Jan Allen, James Bevan, Stephanie Chew, Doug Clark, Sarah Delaney, Julie Lee, Enmoore Lin, Geoff Luscombe, Monica Nugent, Christine Vibet and David Williams.

Special acknowledgement is owed to the following volunteers:

- ◇ Jeff Cottrell – pro-active organiser and networker, and founder of the Willow Warriors.
- ◇ Alan Lane – early secretary and masterful grant applicant.
- ◇ Fred Wood – tireless nursery manager for seven years.
- ◇ Ken and Ros Pickering, Paul and Sue Armstrong - who regularly supported the nursery.
- ◇ Richard McGoogan – creative “Mr Fix-it” and general stalwart.
- ◇ Lyn Partridge – produced the FoC newsletter and kept the image library until 2015.
- ◇ Tony Rodd – botanical adviser, tree-climber and seed collector in the earlier years.
- ◇ Jan Allen – more recent botanical advisor



Volunteers on “Photo Rock” on the Colo, during (above) the second Colo Colossus in 2009, & (right) the twelfth Collosus in 2018



Appendix 3

RANDOM REFLECTIONS

Part of something special — Alexa Troedson

I joined FoC half way through its current history, so I missed the hard work (and pleasure) of eradicating extensive stands of willows from the Colo gorge. In fact, sometimes I feel like a fraud as in my ten years of Wollemi trips I've only seen a handful of willows. Most of my trips have been mopping up and surveillance exercises, some with few weeds sighted - not that I'm complaining. I've loved this purposeful exploring of the Wollemi wilderness, guided and accompanied by such adventurous, knowledgeable, capable companions. I've got a strong sense of being part of something special, probably unique.

My early trips all involved packrafts, which FoC had just purchased when I joined. In late 2010, I had a small child at home but was yearning to get back into the bush on extended outings. I spotted an FoC trip listed in the NPA Journal. The combination of weeding (useful!), packrafting (fun!) and wilderness (yes!) seemed perfect. Soon I was off, pushing down steep scrubby slopes, rucksack bulging and split-down paddle catching on low branches, until we reached the river and could inflate the rafts. It's slightly alarming now to look back at the photos of that trip with no helmets or PFDs in sight! The sandy river-bend on the Colo at Pinchgut Creek was the first night's campsite and has been a favourite stopover of mine on subsequent trips; always a good swimming hole right in front and ample camping space.



Alexa inflates a new packraft, on her first day with FOC

One balmy evening we were entertained by fireflies dancing through the bush across the river. With the nearby Cape Ivy now vanquished, I need to find some other excuse to get back there.

What can beat a day spent packrafting the Colo? Floating down long pools, below towering golden cliffs and blue skies, an occasional dip in the cooling waters. An eagle glides past overhead, a cormorant observes from a bank-side rock. Then, the excitement of some small, bouldery rapids, squeezing through gaps, pushing off rocks

and taking small drops (on one occasion too much excitement, enough said). More typically, lots of rock-hopping and boulder-clambering, dragging raft and paddle. Then, at the end of the day, a riverside beach to camp on with firewood replenished by the last flood, traces all-around of past users of the site - perhaps a snake skin left on a rock, prints across the sand, or holes dug at river level by water rats searching for mussels.

I'm in awe of the rugged and ever-evolving landscape of the Colo. Over multiple trips it becomes clear how each camping beach is reshaped by every flood, that major rockfalls are regular events. Hopefully these characteristics will repel future human threats. FoC has done what it can to repair the ecology, and long may it continue. If only every Australian landscape had a similar custodian group.

Camp Creek with Ratty — Andy Macqueen

What's my favourite campsite on the river, people ask. That depends, I always reply. It depends on events, moods and perspectives. The particular sense of place. Some of the standouts get a mention in my book *Wayfaring in Wollemi*.

It would be hard to beat our site near Camp Creek on the Wolgan. I've camped there eight times in the course of various Colo Colossi, always enjoying a pleasant campfire after dealing with the local cape ivy patch.

One night there I made an unexpected friend. Liz and I were camped under our flysheet in our preferred spot right next to the rippling river. It was cold, so I wore a beanie to bed. In the middle of the night I woke with the feeling there was a weight on my head. I stirred, the weight disappeared and I dropped back to sleep. Then I was woken again, this time by a sharp little pain on my forehead, just under the rim of my beanie.

Had I been bitten, or what? I pulled my beanie off and dabbed the back of my hand on my forehead. My torch revealed the imprint of two blood spots, about a centimetre apart. I wiped the blood off and repeated the exercise, with the same result.

What bites you with two punctures? Moderately alarmed, I lay wondering about the treatment for snakebite to the head. Surely the



In camp at Camp Creek

one and only treatment was to lie still. No point waking Liz and causing panic. So I lay there, while holding a hanky against my forehead to stem the slight bleed.

After, I suppose, twenty minutes, I decided I was still alive and kicking, and resolved to go back to sleep.

In the morning I was still OK, though my story caused some consternation and not a little scolding. Photos were taken of the apparent bite marks and we continued on our way.

Afterwards the photos were emailed to naturalist Martyn Robinson, at the Australian Museum. He replied as follows: "The wounds look more like claw marks than bite marks. Bite marks, whether the marks are from the upper jaw teeth alone, or from lower and upper jaws converging - are usually lines in parallel. Claws, on the other hand, if used in a swiping action will also leave parallel lines, but if used in a grabbing, or grasping, action, tend to converge in a similar pattern to the image you have shown. I can only guess that either something mistook your beanie clad head for prey, or was curious about it, or tried to climb up it. When you reacted it probably left the scene quickly."

So there you go. Given that we were right next to the river, I think the culprit was a water rat. Next time we visited we again slept under the open fly. Convinced that the encounter had been a mere misunderstanding, I was keen to renew the acquaintance with Ratty. To make a fresh start with our relationship.

Liz demanded that I wake her if the incident was repeated. She needn't have worried. I was left alone that time. Ratty had forsaken me.

Never Give Up — James Bevan

Friends of the Colo are great.

They know where to find weeds.

They love to kill them.

And it's pretty fair to say after 20 years of consistent effort,

That they will never give up!

The first raft trip — Carol Isaacs

The phone call from Vanessa went something like this: we have someone from Victoria flying up with inflatable rafts and equipment to show us how we can use them, and river guides, on the Colo. We are going to fly in by helicopter and then raft down the river and we need some volunteers. Are you available for five days next week? Well, I didn't need to think about that amazing offer for too long before saying yes. In my early fifties, I had never expected to get into white water rafting!

The party consisted of Bruce, from Paddlesports Australia, Jack from Penrith Whitewater Stadium, Ranger Vanessa, Field Officer Steve and three volunteers - Fred, Richard, and me. We flew from Colo Heights and landed on the river at the end of Bob Turners Track. Then the learning began. We had two large four-person rafts. Jack and Bruce showed us how to inflate and pack them using racks and boards to float the load just above the floor of the raft, making sure the weight was evenly distributed and that everything was securely lashed down. On the river we were instructed in paddling techniques, hand signals, how to scout rapids and identify dangers, what to do if we went overboard, how to drag someone back into a raft, how to right a raft if it flipped and how to manoeuvre the large rafts through, over and between the many rocks in the Colo. I found that particularly interesting, working out how you could get a large, fully laden raft through a rock garden using minimal effort, by strategically weighting and unweighting the raft, and even putting it up on it's rim and "railing" it through narrow gaps. I later alarmed a younger, less experienced guide by attempting the latter technique. He didn't seem familiar with this particular trick and wanted to lift the raft instead. We also learned to use the rafts as ladders to get in, out of and across difficult holes between the rocks.

Jack and Bruce did all the catering, to demonstrate the benefits of having river guides do this. Indeed, it freed the rest of the party to continue willow whacking while they set up camp and prepared food. In those days there were many large galleries of willows and we worked hard. As well as having someone else take care of the food, another delightful revelation was being able to transport coolers with fresh food in the rafts.

It was hot. One day there was no suitable place to set up the table for lunch. No problem. When we paused our work to eat lunch we found the table set up in the shade in knee deep water. We ate standing or sitting in the shaded shallows.

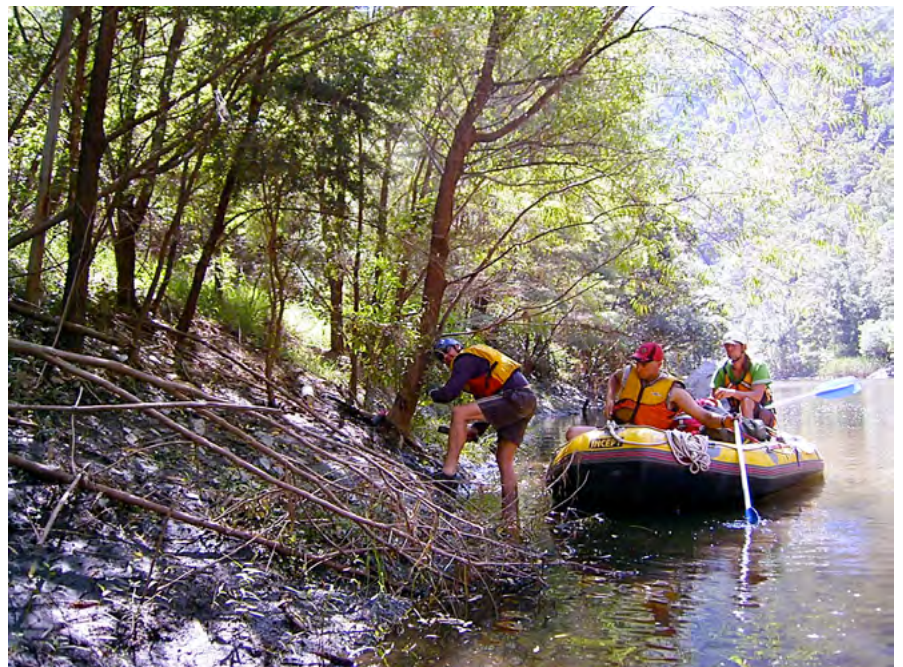


Carol and Steve willow whacking during the first raft trip

It was on this trip that Dead Wallaby Beach was named. The smelly, decomposing wallaby remains were in the middle of the gallery of willows we wanted to treat which was also right at the campsite. Fred became the undertaker, burying the body in the sand using a paddle as a shovel, while the rest of us either dealt with willows or set up camp and cooked dinner.

We were also introduced to the groover. This was a large ammunition box which, being waterproof, odour proof and extremely strong was used, along with a system of plastic bags, as a portable toilet in which human waste could be carried out of the river system. This was then to be disposed of responsibly afterwards. A portable toilet seat was usually placed across the top of the box but if this seat was forgotten, the edges of the box top left grooves in ones' thighs and buttocks, after a few minutes of sitting (I said sitting). Along with a hand washing station, we subsequently used this system whenever we had large groups camped together.

Prior to this trip there had been some discussion about whether or not we could carry sufficient herbicide. We were also informed that the catering would not include alcohol. Once on the river it was found that nearly everyone had managed to secrete at least 2 litres of alcoholic beverage in their backpacks and in fact we had more red wine than herbicide. Turns out we had ample supplies of both red* liquids on the



Raft-based willow treating, WOW 2005

trip and we never again worried about our ability to carry sufficient herbicide. (*It is worth noting, that in the very early days of FoC's willow whacking, we used undyed herbicide and our consumption was quite high. Once we added dye to our herbicide, our usage decreased by between one third to a half.)

Another strong memory is of the mosquitos. At this time the prevalence of Ross River fever in the Hawkesbury River catchment was becoming known. On the second last day Steve had to finish the trip by a certain time. To meet this deadline Richard and I were dropped off to treat a gallery of big willows up on the bank while a river guide and Steve paddled the last leg as quickly as they could. The second raft was some way behind, whacking away at other willows. Richard and I started work but within minutes several squadrons of large mosquitos had begun to attack. It became

too uncomfortable to continue and we had no support craft to rescue us. Finally, we abandoned our task, bundled most of our clothes into dry bags and waded into the middle of the river to sit on the end of a sand plug, in water up to our necks. The second raft eventually rescued us but I do remember how strange it was to be sitting in water up to our necks, with a man I barely knew, in our undies (for the record, Richard is a lovely bloke and nothing but a gentleman). That night we learnt another river guide trick: there is usually air movement next to flowing water and this helps keep insects at bay. Rather than camp in the spacious site at Colo Meroo, up in the grass and trees, we chose to squeeze onto a small sandbar by the water, partially to avoid mosquitos.

It was a memorable trip and thanks to the generosity of Bruce and Jack, we have used inflatable rafts of one kind or another ever since.

The bloke I was sitting behind — Joanna Montague (Willmott)

I got involved in the Friends of the Colo because the bloke that I was sitting behind on the train was reading what looked like a bushwalking newsletter. As the carriage gradually emptied, I initiated a conversation about bushwalking and when we reached Richmond station, he offered me his newsletter to take home. Thanks Fred Wood for introducing me to a whole new world of outdoor adventure and some lifetime friends.

I have some exciting scientific memories of FoC, like killing the 'last' willow, when Tony Rodd discovered the rare plant [*Gyrostemon thesiodes*] at Colo Meroo, and the challenges at the Glenbrook nursery. And some fun memories like the helicopter ride and almost starving on a WoW trip, killing the most enormous willows in cornfields and along driveways in Upper Colo.

However, my favourite FoC trip is Mt Townsend. I liked the mostly off-track walking, the steep but not impossible gradient, and the serenity when you get there. Long enough for overnight but a shortish walk so there was plenty of time for satisfying weeding, eating and conversation. It was a great weekend getaway.

Thank you, Friends of the Colo, for fond memories I will have forever. Happy birthday and whilst life has taken me away from the Colo valley, it will always have a special place in my heart.



A memorable start — Su Li Sin

29 May 2020.

This weekend marks 6 years of my involvement with the Friends of the Colo - a small part in its 20-year history. Despite knowing a few of the FOC members for much longer than that from trips to Tasmania volunteering with SPRATS, it took me another few years to finally go on an FOC trip.

On my first FOC trip, my then-new partner Brent also came along... and that trip set the tone of our involvement for many to come - i.e. we "only" join the weekend camp oven trips. 😊 While we've since been on more than just the weekend camp oven trips, they are still the main trips we join in as worker bees and we love them. The camaraderie over the camp oven dinner is definitely a highlight for us, so much so that we've been organising some of the more recent ones.

I've enjoyed the work we put in and seeing the results from returning to the same spots year on year. Whilst sometimes demoralising when we find a resurgence of weeds, it's comforting to know that what we do makes a difference. This is even more evident from our recent wanderings in our local area in suburban Sydney, seeing the Cooks River (and to be honest, every suburban creek/river) lined with weeds. The battle in the bush at least feels winnable.



Shhh... don't tell Carol I'm not following her instructions exactly

There's so much to learn on these trips:

Weed identification. I know Carol thinks we were rubbish at the start... and very true, evident on one trip by her (and Helen) following behind us, pulling out all the baby lantana we had missed.

Birds. I can at least tell the difference between main families now!

Life stories. I've always enjoyed stories and people stories are the best. Being younger than most, it's always an honour to be able to learn from the experience of those who've 'been there and done that'. If nothing else, we get the best "bucket list" for future trips!

Last but not least, I've really enjoyed the company of those I've had the pleasure of meeting over the years. There is always a warm round of "hello how're you"s at the start of every trip and then another round of warm goodbyes at the end.

I can only hope we would be lucky enough to form and maintain such lifelong friendships and hopefully carry on the torch caring for the wild places we love.

Feeling both odd and good — Gary Roberts

My recollections of interacting with FOC go back as far as an overnight walk with the NPA, in Autumn 2001, as lead by the late Henry Roda. I think we went down one pass upstream of Angorowa Ck, then on day two climbed one of Bob Buck's passes - on the SE corner of the Colo with Angorowa Ck. *[The party included FoC members Carol Isaacs and Ian Partridge, who were interested to see whether the routes were viable for future willow work in the gorge.- ed.]*

This entailed a series of three-metre rock-climbs from small ledges. Ian Partridge thought Ian Donovan's whingeing about our situation to be funny all the while. *[It is well know that Gary's rock-climbing skills helped saved the day! – ed.]*

Once at the top, then encountering the old 4WD/logging trail (but not before getting a little scratched up), Ian Donovan pointed out that we had now bushwalked half of the weekend's required distance. Carol laughed heartily, which made me feel both odd and good about the company I was travelling with - trouble was that it was after 4pm Sunday. So we 6 or 7 walked back to the locked gate and cars, well into the night, leaving behind much beautiful wilderness.

The weekend was also memorable in that we had found a low overhang to sleep like tinned sardines for Saturday night upon the Colo. Also, around our small fire, Ian Donovan produced a penny whistle to play - and Carol beautifully picked up the melody to sing to.

It was a great trip, moreso in that Carol told me directly about a Landcare group she was involved with, with a native plant nursery at Glenbrook NPWS office - would I be interested? Of course I was.

The nursery days were of enjoyment, and I recall being introduced to 'dibbers', although ours were never as fancy as the commercial ones now available.

I saw Richard McGoogan's enthusiasm for construction, and Fred Wood's enthusiasm for everything - I was amused then at his carrying in a big briefcase, wonderfully full of collected seeds in envelopes, appropriate labels and incidentally accumulated dirt. I learnt more about plants, including the rare *Leptospermum spectabile*. <http://anpsa.org.au/l-spe.html>

Fred also had within, a book; Field Guide to the Native Plants of Sydney - Revised 2nd edition, by Les Robinson. At Fred's suggestion, he offered to loan it to me until next time we met at the nursery.

Very shortly afterwards, a terrible bushfire saw the loss of the Glenbrook NPWS nursery on 25 December 2001. I still have the informative book in my care, which states that it belongs to the landcare group that has brought me much joy, Friends of the Colo.



An FoC career cut short — Alan Lane

Sadly, my short career with FoC came to an abrupt close in 2002. I was badly injured in a rock fall while working as a volunteer with the Australian Museum at the Riversleigh fossil deposits near the Gulf of Carpentaria. Bowing out of any active role in FoC, I found I was able to use what I had learned about eradicating willows to launch another whole new career in environmental restoration!

After being medivacked by helicopter and Royal Flying Doctor - huge drama! - I had seven operations, spent six months in a wheelchair and had a year of intensive physio to get back on my feet. As a result, I no longer had the balance, mobility or agility I needed to join those wonderful trips down the Colo. I knew from my first trips they can involve serious rock-hopping and pretty full-on portage in narrow gorges. If my still-weakened bones let me down, a stretcher-borne evacuation would be a nightmare for all concerned and helicopter rescue would be out of the question.

Even so, I'm extremely proud to have been part of the FoC in the early days, especially my role in submitting the successful grant application to the Environmental Trust.

That enabled us to commence our ambitious, long-term program of removing 3000 mature *Salix nigra* from the remote reaches of this wonderfully remote and otherwise pristine wild river.

I also helped out as a committee member by taking on the job of Secretary, sending out agendas and reminders, keeping minutes and helping to keep everyone focused by making sure minuted "Actions" were acted upon! I remember a couple of occasions when a serious bout of sciatica meant I had to take minutes standing up, with my notebook on top of a filing cabinet!

My new career eradicating willows has taken place over the past eighteen years in a much less remote location. In 2002, the Popes Glen Bushcare Group, which I founded in 1992, had already won several grants over the years for work in the catchment of Popes Glen Creek, Blackheath, but the forest of mature *Salix fragilis* on an extensive silt flat at the headwaters of the creek was always explicitly excluded.



Alan (back row, dark blue top), was one of six in this group from the first WOW who became inaugural FoC members

The wisdom of Blue Mountains City Council was "Don't even think about it. A volunteer group can't tackle a project as big as that, even with Council support."

In spite of that advice, the longevity and track record of the bushcare group and the new-found knowledge in managing willows from my FoC experience gave us the confidence to give it a go. A seeding grant from the Urban Run-off Control Program kick-started our program and we worked for 18 years, supported by the BMCC and with funding from a number of grants, but most especially two big ones from the Environmental Trust. At the end of our second ET grant, we were able to say that we had achieved what just about everybody thought beyond the capacity of a volunteer group - a forest of mature willows with a dense weedy understorey on a highly degraded, highly braided silt flat transformed into a fledgling Upper Blue Mountains wetland, teeming with birdlife and frogs. [You can view our 8-minute video that tells the story here: <https://www.youtube.com/watch?v=610sas330EQ>]

So, watching from the sidelines, I've been ever so proud to see how successful the original Friends of the Colo has been and how its activities have hived off new groups working in other remote locations and on other weeds - truly a wonderful blossoming of achievements by a skilled and committed bunch of "environmental warriors".

[It's amazing to think that when Alan was FoC Secretary few members were on email, so communications had to be sent by snail mail! – ed.]

In praise of socks and gaiters — Liz Macqueen

A few years ago Andy, Carol Isaacs, Greg Hausfeld and myself went walking down Wollemi Creek in search of privet. We came up at Tinda Creek. After having afternoon tea at the top of the hill, I stood on a large rock and it started to slip. I fell over and the very large rock slid over my legs and trapped me. I couldn't lift it or shift it and was stuck there until the others came to help. It took three of them struggling hard, to lift the very, very large rock away from my legs. No damage was done, apart from a dent in my shinbone, thanks to my thick socks and gaiters.

The moral of my story is to never stand on loose rocks, whatever their size, wear thick socks and gaiters—and always have three stalwart FOC members handy, ready to help in an emergency.



His last trip — Yvonne Lollback

My first time with the FoC group was in May, 2008 after my partner Bruce had been diagnosed with Mesothelioma. It was the Mt Townsend weekend at the bend treating Cape Ivy. Because it was a weekend where he could come and not do too much except enjoy the outdoors, it was great and ended up being his last overnight walk. Ken and Ros Pickering also came though Ken too was ailing. Andy, Carol and the others were so considerate and helpful. Carol had organized her usual camp-oven extravaganza which we loved and we made ourselves useful by taking charge of the campfire. Bruce was in his element as he loved campfires and sitting under the stars beside a beautiful river.

It was a weekend I'll never forget. The camp-oven meal was delicious with dessert even. And the weather was great. Even the river crossing wasn't too bad.

The Pickerings and ourselves set off up the hill well before the others on Sunday morning because the men were obviously going to be slower. Carol very graciously gave us some pink tape and said we could use this to tie their pack/packs to the track if they proved too heavy for them. But both men made it up with lots of rests. I did go back a few more times the following years or walked in from the T3 track to end at this beautiful spot. I certainly haven't done near as much as the others and I admire them greatly.

[It was a memorable weekend for everyone. FoC is as much about caring for people as about caring for country. Bruce Dover passed away six months later; Ken Pickering was with us for another ten years, but his own worsening illness decreed that this was his last overnight walk. – Andy]



Yvonne and Bruce, Mount Townsend Bend

The Knicker Nabber — Anon

The goanna froze, the knickers held firmly in its mouth. You could almost see its thought processes - uh oh, I've been sprung. Will I try to escape and risk getting my contraband snagged on a bush? Or will I abandon my prize, and just flee?

Likewise, the woman froze. Her thought processes were - oh no! If I make a grab for them the goanna will bolt up the nearest tree, and I'll be left knickerless. On the other hand, if I don't try and get them back, I could still be left knickerless! What a dilemma!

The party of four had been slogging down the Capertee River on an excessively hot day and decided to take an extended break in the shade, by an inviting pool. Swimming and clothes rinsing had occurred and wet clothes draped and hung on nearby bushes to dry while the four ate lunch and generally lazed around. At some stage, the woman vaguely noted that her knickers weren't on the low dead branch where they had been left, but this serious loss did not register straight away. Standing up slowly, after a long lunch and a good lie down, a movement caught her eye and she turned her head slowly. The loss registered. There they were, burgundy and grey stripes, hanging from the mouth of a dragon (OK, medium sized goanna) which was just about to disappear behind a large rock. Eye contact was made and both parties froze, suspended in time for what seemed an age. Finally, the goanna cracked, dropped the knickers, and slunk guiltily behind the rock. An uncomfortable end was avoided.



Knickerless goanna

[The woman concerned should look after her undergarments properly. It is understood that a Tasmanian devil made off with her bra during a SPRATS trip. Evidently it didn't fit the devil: the item was retrieved but in an unusable condition. – ed.]

Rolling along — Andy Macqueen

"I'm a bit worried. I've just read Richard Flanagan's *Death of a River Guide*, and I couldn't sleep last night."

So said my passenger, as we drove to Colo Heights to join in the big WOW of April 2000. In hindsight, he had reason to worry. He had never been in a canoe before, he was soon to be dropped by chopper into one of the wildest river gorges in the country, and the river was to flood. Fortunately he was accompanied by experienced companions and he survived.

He had been invited because of his bushcare experience. So had I, though I didn't know a willow from a wattle then: my weeding experience was limited to several years of tackling gorse and broom in the Grose. Unlike my passenger however, I was familiar with the Colo. Four years beforehand I had canoed it from Wollemi Creek with Ken Campbell and my son Geoff. It was a dramatic introduction, for in the middle of the trip the river rose a couple of metres overnight. We transitioned from portaging because the river was only trickling, to portaging because it was raging.

Since that WOW of 2000, the Colo country—and the Wollemi in general—has consumed much of my life. Call it an obsession if you like. When not controlling weeds with FoC, I've been researching Aboriginal sites or following the tracks of past explorers, surveyors, geologists, and would-be railway and dam builders. I have a strong sense of ownership, arising from discovery; from achieving success with weeds; from shared experiences with like-minded companions; and from the knowledge that my great-great-grandfather was the first white fella to explore and map the gorges.

An ownership nurtured by wonder: wonder at an amazing landscape and all the living things hidden within. Wonder at special places and happenings.

Not that my sense of ownership rates with that of the real owners, who left their marks on countless rock shelters all about.

Surely though, we all need to own it. If we cannot all treasure and care for our natural places, there is no hope for our dystopian world. That is the point of it all.

Mind you, the river doesn't care. She just keeps rolling along—alternately trickling and raging as she has for millions of years.



Friends of the Colo is thankful for the support and encouragement provided by many people and organisations over the years. These include:

- ◇ NPWS rangers past and present: Vanessa Richardson, Keirilee James, Dave Monahan, Paul Glass, Neil Stone, Chris Pavich, Adam Bryce, Chris Banffy, Raf Pedroza and Ben Correy.
- ◇ NPWS area managers past and present: Paul Godfrey, Richard Kingswood, Glenn Meade, and Lisa Menke.
- ◇ Former NPWS Blue Mountains regional managers Geoff Luscombe and Alan Henderson.
- ◇ NPWS Blue Mountains director (and former area manager) David Crust.
- ◇ Staff of NSW Local Land Services (formerly Hawkesbury-Nepean Catchment Management Authority), notably Bill Dixon, Paul Bennet, Alex Muir, Vanessa Keyszer and Huw Evans.
- ◇ Jack Hodge of the Penrith Whitewater Stadium.
- ◇ Bruce Baxter of Paddle Sports Australia.
- ◇ Hugh Patterson from Good Bush People, Kirsty Reynolds from Blue Tongue Ecosystems and Trish Chadwick from Hawkesbury-Nepean Catchment Management Authority—for providing technical advice in developing programs to control the various weeds.