

The value of volunteers in bitou bush control

In 2007, it was determined that aerial spraying was no longer viable for Dunbogan beach as there were not enough bitou bush plants for it to be efficient. A contractor was engaged to ground-spray the remaining plants on the foredune and hind dune, and the excellent results have been followed up by volunteers on Bitou Bash days. Vigilance at this stage is critical to maintaining areas where aerial spraying and ground control has been completed.

The NPA community group provides ongoing labour support on Bitou Bash days and, importantly, has attracted ongoing grant funding. To date, eight Envirofund grants totalling \$93 850 (with the 9th application of \$32 000 pending) have contributed significantly to the project. The NPWS contribution since 1998 including budget funding and in kind contributions is in excess of \$200 000.

Conclusion

The Crowdy Bay National Park bitou bush control program has demonstrated many successes over the last 27 years. The program continues to expand, and in the last two years has incorporated significant areas around Crowdy Beach. Dedicated community volunteers have made much of these successes possible and, overall, the program has shown to be feasible and efficient. In addition to the extensive aerial spraying and ground control campaigns, over 224 000 individual bitou bush plants have been hand-removed over the course of the project by volunteers. These amazing efforts continue to prevent further bitou bush invasion and protect these valuable coastal areas.

Acknowledgments

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ing long-term commitment to bitou bush control at these sites. Lastly, Mike Dodkin (NPWS) for his efforts in coordinating the project over the last 28 years.

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Management of bitou bush on the New South Wales north coast

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Introduction

The North Coast Weeds Advisory Committee (NCWAC) is an advisory and coordinating body for weed management covering 290 kilometres of coastline stretching from the Queensland border to the Shire of Nambucca in the south and encompassing the Tweed, Byron, Ballina, Richmond Valley, Clarence Valley, Coffs Harbour, Bellingen and Nambucca Councils. The committee helps to promote best practice weed management and assists in the implementation and co-ordination of effective on-ground weed management programs. The committee's management of the noxious weed bitou bush (*Chrysanthemoides monilifera* subsp. *rotundata* (DC.) Norl.) is carried out by a variety of organizations and funding is obtained from a diverse range of sources. This paper presents an overview of the success of this program.

The North Coast Weeds Advisory Committee

The NCWAC has representatives from five Local Control Authorities (LCAs), who are responsible for the administering of the NSW *Noxious Weed Act 1993* on free hold and Council managed lands. The success of the NCWAC program is due to the co-operative effort between these LCAs and other committee members including the NSW Department of Primary Industries, Department of Environment and Climate Change, Department of Lands, the Queensland Department of Primary Industries and Fisheries and the Northern Rivers Catchment Management Authority. The committee also cooperates with a number of local land managers, including community groups, Aboriginal Land Councils and private property owners. The committee meets quarterly and sponsors an annual weed forum that brings

together key stakeholders and members of the community to share the latest weed research and management information. A dedicated project and planning officer organizes NCWAC events and assists with the development of strategies and funding applications. The part-time project officer position is funded by matching contributions from the five participating LCAs and NSW Department of Primary Industries, at a total cost of approx \$32 000 per year.

Bitou bush management

Bitou bush was gazetted as a noxious weed across all NSW North Coast LCAs in 1998, and the NCWAC took immediate action. The committee formed the North Coast Bitou Bush Taskforce in 1999 and appointed a project officer to develop a regional bitou bush strategy, which was completed in 2001. A bitou bush regional control plan was adopted in 2002. Since

then, the area of bitou bush infestations managed by committee members has substantially increased through the involvement of a number of stakeholders.

The programs developed under the regional strategy are a cooperative approach between NCWAC and its members and include projects such as those undertaken by the NSW Department of Environment and Climate Change in Bundjalung and Yuraygir National Parks, where over 650 hectares of bitou bush are under active management. This work is supported by bitou bush control on adjoining lands by Clarence Valley Council to the south and Far North Coast Weeds in the north. The North Coast Bitou Bush Taskforce also assists with co-ordinated regional aerial control programs, which target up to 800 ha of bitou bush infestations annually.

Highlights of the NCWAC program include the formation of the Tweed Bitou Bush Steering Committee in 2002, which currently manages 500 ha of various land tenure for bitou bush and other coastal weeds. The Committee maintains the northern bitou bush containment line at the Tweed River, which aims to prevent bitou bush from re-infesting south-eastern Queensland.

The NCWAC also supports biological control efforts for bitou bush. The bitou tip moth (*Comosotolopsis germana* Prout)

and the bitou seed fly (*Mesoclanis polana* Munro) were first released in the Clarence Valley to control bitou bush in 1992 and 1996, respectively. NCWAC members are working with the national Weed Warriors program to mentor school children and help them rear and release bitou bush leaf-rolling moths (*Tortrix* sp) over the next few years. NCWAC utilizes integrated management programs where possible.

In the Clarence Valley, a consistent control program over the last decade has resulted in 18 sites under council management being reduced from heavy to light bitou bush infestations. Over 90% of the coastline in Coffs Harbour Council is under active bitou bush management, with over 30 different community groups involved. Bitou bush is also being managed on over 80% of the Bellingen Shire and Nambucca Shire coastlines.

The advent of the NSW Bitou Bush Threat Abatement Plans (TAP; DEC 2006) has also increased bitou bush management efforts. The Northern Rivers Catchment Management Authority has provided funding for bitou bush control at 24 priority sites in the NCWAC region. The implementation of the TAP has allowed for site specific management plans to be developed which will assist in monitoring and evaluation.

A consistent and coordinated approach has contributed to the successful management of bitou bush on the NSW north coast. The NCWAC operates under a strategic framework that continues to foster cooperative management programs. Current efforts of mapping the distribution of bitou bush in early 2008 will provide an effective measurement of success against baseline mapping conducted in 2001.

Continued sharing of information through the committee has highlighted the need for a multi species as opposed to single species approach to control over the years. Recently, the committee's landscape approach to bitou bush management has evolved into the development of a regional plan that calls for holistic management of all coastal weeds, with special emphasis on the secondary weeds that invade after bitou bush control. This holistic approach will better enable NCWAC members to further protect the natural landscapes on the NSW north coast.

Reference

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