

BINGI LANDCARE

STRATEGIC LANDSCAPE PLANNING PROJECT



Prepared for the:
Bingi Landcare Group and Eurobodalla Shire Council

by

Gaia Research Pty Ltd

March 2006

CONTENTS

EXECUTIVE SUMMARY	1
1.0 BACKGROUND	3
1.1 Purpose and scope of capacity planning project	3
1.2 Description of study site	4
1.2.1 General description	4
1.2.2 Overview of vegetation communities	4
1.2.3 Soils.....	4
2.0 REVIEW OF PREVIOUS DATA	9
2.1 Fauna.....	9
2.1.1 Foot-based spotlighting	9
2.1.2 Amphibian surveys	11
2.1.3 Targeted surveys	14
2.1.4 Habitat linkages.....	14
2.1.5 Summary of fauna data.....	14
2.2 Flora	16
2.2.1 Assessment of vegetation communities.....	16
2.2.2 Threatened ecological communities	19
2.2.3 Summary of landuse in the Bingi area.....	20
2.3 Estuaries and coastal wetlands	22
3.0 METHODS	24
3.1 Fauna surveys.....	24
3.1.1 Diurnal bird census	24
3.1.2 Nocturnal call playback	25
3.1.3 Foot-based spotlighting	25
3.1.4 Incidental observations	25
3.2 Flora surveys	25
4.0 RESULTS	26
4.1 Fauna.....	26
4.1.1 Diurnal bird census	27
4.1.2 Nocturnal call playback	27
4.1.3 Foot-based spotlighting	27
4.1.4 Habitat linkages.....	27
4.2 Flora	27
4.2.1 Coastal lowlands Spotted Gum-Burrawang cycad dry shrub dry forest	28
4.2.2 Southern coastal hind dune/Headland scrub	30
4.2.3 Southern coastal dune scrub complex/ Southern coastal wattle forest	31
4.2.4 Ecotonal coastal swamp forest - <i>Casuarina glauca</i> / <i>E. botryoides</i>	31
4.2.5 South coast Swamp Oak forest complex	32
4.2.6 Coastal sands Bangalay-Old Man Banksia grassy Bracken shrub forest.....	34
4.2.7 Coastal Forest Red Gum Shrub/Grass forest.....	34
4.2.8 Saltmarsh	34
4.2.9 Freshwater wetlands on coastal floodplains.....	35
4.2.10 Southern coastal Blackbutt - Ironbark forest.....	36

4.2.11	Southern coastal Bangalay - Myrtle forest	38
4.2.12	Southern coastal Red Bloodwood forest	38
5.0	MANAGEMENT PLAN FOR REVEGETATION	40
5.1	Forest dependant fauna	40
5.2	Endangered ecological communities	43
6.0	ACTION PLAN FOR WORK	44
6.1	Development of policy to protect existing habitat	44
6.2	Fencing and revegetation within the catchments of ICOLLs and riparian areas	46
6.3	Linking existing forest habitat	47
6.4	Weed eradication	48
6.5	Genetic budget for revegetation actions	48
6.6	Re-introductions	51
7.0	DISCUSSION	52
8.0	CONCLUSIONS	54
9.0	RECOMMENDATIONS	55
	REFERENCES	57

APPENDICES

Appendix A.	Plants located in the Bingi study area	61
Appendix B.	Descriptions of select vegetation communities from the Southern CRA	66
Appendix C.	Hollow-bearing and significant trees in the Bingi study area	82
Appendix D.	Photographs of various vegetation communities within the Bingi area	83
Appendix E.	Excel spreadsheet of previous and current survey data	

FIGURES

Figure 1.	Bingi study area	6
Figure 2.	CRA vegetation communities within the Bingi study area	7
Figure 3.	Soil types within the Bingi - Congo study area	8
Figure 4.	Previous surveys of arboreal mammals conducted in the Bingi area (Gaia Research 2001)	10
Figure 5.	Location of previous amphibian surveys in the Bingi study area	13
Figure 6.	Location of vegetation plots in the Bingi area	17
Figure 7.	Broad landuse patterns in the Congo - Bingi area	21
Figure 8.	Revised distribution of vegetation communities in the Bingi area	39
Figure 9.	Proposed areas for revegetation for habitat corridors	50

TABLES

Table 1.	Location and description of spotlight surveys	9
Table 2.	Animals detected during spotlight surveys	11
Table 3.	Number of amphibians detected at survey sites	12
Table 4.	Terrestrial threatened species recorded from the Bingi area	15
Table 5.	Plot surveys of native vegetation within the Bingi study area (from Lockwood <i>et al.</i> 1997)	16
Table 6.	Native vegetation communities within the Bingi study and areas within the Eurobodalla shire (from Eco GIS, 2001)	19
Table 7.	Landuse patterns in the Bingi area	20
Table 8.	Estuaries in the Bingi area	22

Table 9.	Vulnerability ranking for estuaries in the Bingi area	23
Table 10.	Systematic survey methods for fauna.....	24
Table 11.	Location of systematic bird surveys and vegetation community.....	25
Table 12.	Birds detected during the systematic survey.....	26
Table 13.	Size of various vegetation communities within the Bingi study area	28
Table 14.	Breakdown of revegetation budget.....	49
Table 15.	Priority list of actions for BLCG and ESC.....	57

Disclaimer

The findings of this report are based on the author's analysis and interpretation of survey results. Views and interpretations presented in the report are those of the author and not necessarily those of the Bingi Landcare Group or Eurobodalla Shire Council.

Front Cover: Revegetation corridor to Coila Lake. Photo G. Daly.
All images of vegetation communities G. Daly.

Fauna survey Garry Daly
Flora survey Rebecca Rudd
Gaia Research Pty Ltd
PO Box 3109 North Nowra P.O. 2541
Phone: 024 4460384
Email: gaiaresearch@shoal.net.au