



Biodiversity of the Georges River catchment

Aquatic biodiversity

November 2004



Approved by

Date

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Foreword

The biodiversity of the Georges River catchment is a unique assemblage of ecological communities, populations and species. This assemblage of habitats and species supports native plants and animals that are endemic to this region or rarely found elsewhere. In addition to these species there are many others that are also represented elsewhere and still more that are occasional or regular visitors to catchment.

The biodiversity of the Georges River catchment, like most biodiversity in the Sydney metropolitan area, is under pressure from a range of impacts. The pressure exerted through expansion and intensification of development to accommodate the increasing population of metropolitan Sydney is a notable process in the decline of biodiversity in this region, manifest in a range of direct (e.g. habitat loss) and indirect (e.g. reduced water quality) measurable effects. Direct losses are usually readily identified and therefore more easily controlled and managed. Indirect losses are less readily attributable to direct cause–effect processes, often being the cumulative effect of a number of remote circumstances and impacts. In both cases effective management of biodiversity relies on targeting the causes of loss and managing them at their source rather than taking approaches that manage the symptoms (though it should also be said that in some cases, particularly for significantly threatened species or areas, that the symptoms, including population decline, must also be managed).

Local and regional land use planning that is well-informed about extant biodiversity values can limit both direct and indirect impacts on these resources. Thus, the ambit of this report on the biodiversity of the Georges River catchment is fourfold:

- Over recent years the need for biodiversity conservation has taken increasingly high prominence at international, national, state and local levels, and the importance of understanding biodiversity values has emerged as critical to achieving the aims and objectives of international, national and state biodiversity conservation agreements and strategies.
- Information about regional biodiversity resources is essential to support resource managers, decision-makers and proponents of development, providing a basis for understanding natural values and constraints, and better management of biodiversity and other natural resources.
- The documentation of biodiversity values at a regional scale provides baseline data to measure the success of biodiversity conservation at regional scale, and feeds into monitoring and reporting at larger and smaller management scales.
- A regional biodiversity management framework for the Georges River catchment is an important first step in achieving biodiversity management goals and empowers local government to better incorporate biodiversity conservation measures into day-to-day decision-making processes.

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List of abbreviations

Organisations & Conventions

ANCA	Australian Nature Conservation Agency
ANZECC	Australian & New Zealand Environment & Conservation Council
DEC	NSW Department of Environment and Conservation (formerly NPWS & EPA)
DIPNR	NSW Department of Infrastructure, Planning and Natural Resources (formerly DLWC and DUAP)
DUAP	NSW Department of Urban Affairs & Planning (now DIPNR)
EA	Environment Australia (now DEH)
EPA	NSW Environmental Protection Authority (now DEC)
HRC	Healthy Rivers Commission
MSB	Maritime Services Board
MWSPB	Metropolitan Water, Sewerage & Drainage Board
NPWS	NSW National Parks & Wildlife Service (now DEC)
NVAC	Native Vegetation Advisory Council of NSW
SPCC	State Pollution Control Commission
SROC	Sydney Regional Organisation of Councils
UNCED	United Nations Conference on Environment & Development (Earth Summit)

Legislation, Environmental Planning Instruments and Regulations

EP&BC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
FM Act	<i>Fisheries Management Act 1994</i> (NSW)
MP Act	<i>Marine Planning Act 1997</i> (NSW)
NP&W Act	<i>National Parks and Wildlife Act 1977</i> (NSW)
NVC Act	<i>Native Vegetation Conservation Act 1997</i> (NSW)
TSC Act	<i>Threatened Species Conservation Act 1995</i> (NSW)
WM Act	<i>Water Management Act 2000</i> (NSW)

Terms used

ANOSIM	Analysis of similarities
API	Aerial photography interpretation
CAR	Comprehensive, adequate and representative system of reserves
CRA	Comprehensive regional assessment
EEC	Endangered Ecological Community
ESD	Ecologically Sustainable Development (see Glossary)
GIS	Geographic information system
GMREP	Greater Metropolitan Regional Environmental Plan
IBRA	Interim Biogeographic Regionalisation of Australia
IMCRA	Interim Marine and Coastal Regionalisation of Australia
LGA	Local government area
MDS	Multidimensional scaling
NRSCP	National Reserves System Cooperative Program
REP	Regional Environmental Plan
RFH	Recreational fishing havens
RMA	Regional management area
ROC	Regional Organisation of Councils
SOI	NSW Government Statement of Intent
SRA	State recreation area

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The primary representatives of the agencies managing this project were Andrew Bryant (DIPNR), Rob Williams (NSW Fisheries) and Daniel Connolly (DEC), however many other individuals have also contributed, as shown in the table below. *Biodiversity of the Georges River catchment: Context for regional biodiversity planning* sets out similar details for the other two projects. The agencies would like to thank the many contributors for their efforts in the compilation and analysis of this biodiversity data.

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