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Appendix 2

Common and scientific names of NSW fish

Group	Common NSW name	Scientific name ^a
Fin fish	Tuna	
	– yellowfin	<i>Thunnus albacares</i>
	– albacore	<i>Thunnus alalunga</i>
	– skipjack	<i>Katsuwonus pelamis</i>
	– southern bluefin	<i>Thunnus maccoyii</i>
	Mullet	Family Mugilidae
	Redfish	<i>Centroberyx affinis</i>
	Flathead	<i>Platysephalus</i> spp.
	Shark	Class chondrichthys
	Australian salmon	<i>Arripis trutta</i>
	Silver trevally	<i>Pseudocaranx dentex</i>
	Mackerel	<i>Scomber</i> spp., <i>Scomberomorus</i> spp.
	Whiting	<i>Sillago</i> spp.
	Bream	
	– black	<i>Acanthopagrus butcheri</i>
	– yellowfin	<i>Acanthopagrus australis</i>
	Snapper	<i>Pagrus auratus</i>
	Luderick	<i>Girella tricuspidata</i>
	Gemfish	<i>Rexea solandri</i>
	Yellowtail kingfish	<i>Seriola lalandi</i>
	Dory	
	– mirror	<i>Zenopsis nebulosus</i>
	– spiky	<i>Neocyttus rhomboidalis</i>
	Ling	<i>Genypterus blacodes</i>
	Eel	<i>Conger verreauxi</i>
	Morwong	Family Cheilodactylidae
	Yellowtail	<i>Trachurus novaezelandiae</i>
	Garfish (sea)	<i>Hyporhamphus melanochir</i>
	Perch (ocean)	<i>Helicolenus percoides</i>
	Warehou	<i>Seriola</i> spp.
	Blue-eye	<i>Hyperoglyphe antartica</i>
	Barracouta	<i>Thyrsites atun</i>

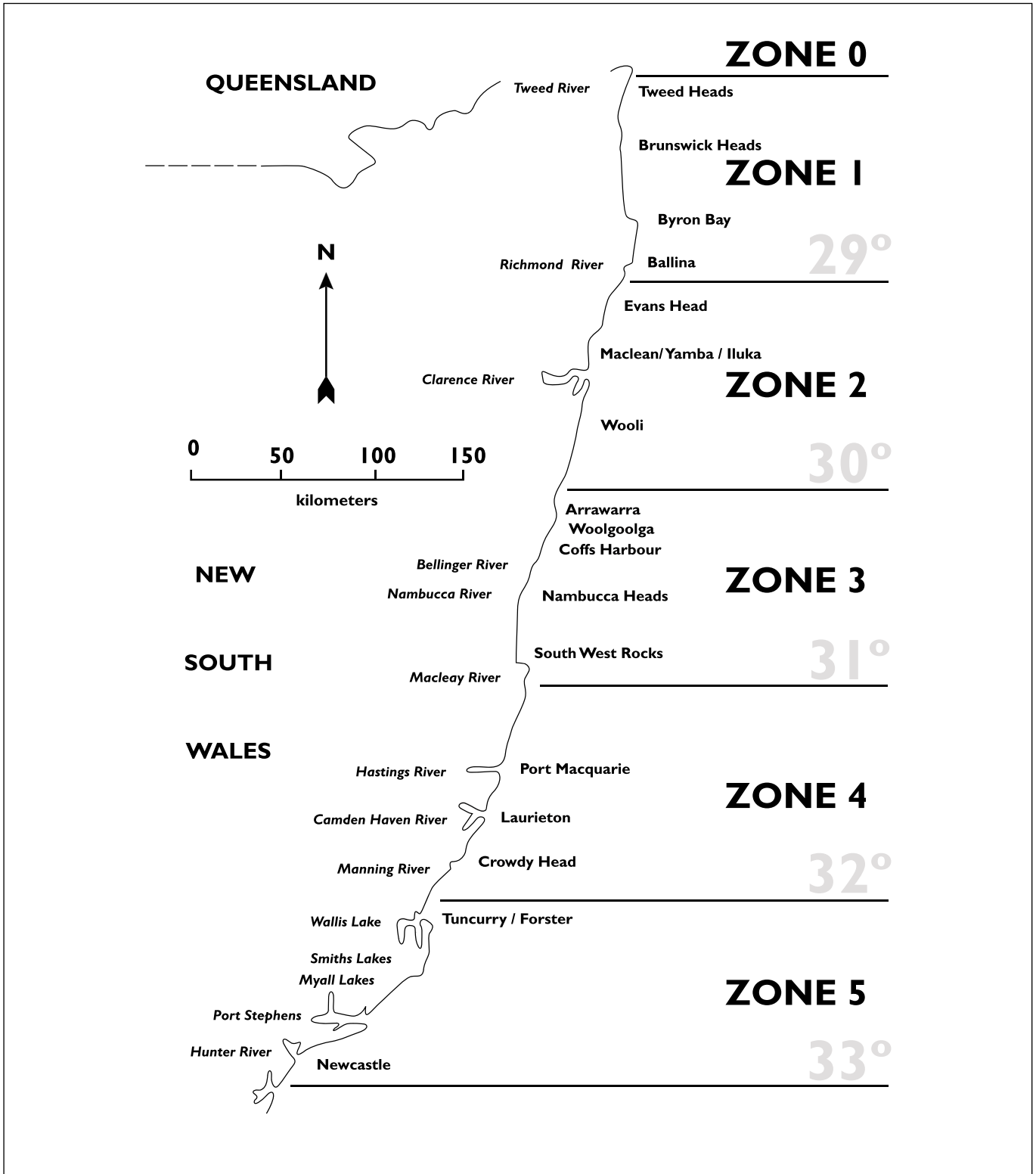
Common and scientific names of NSW fish cont.

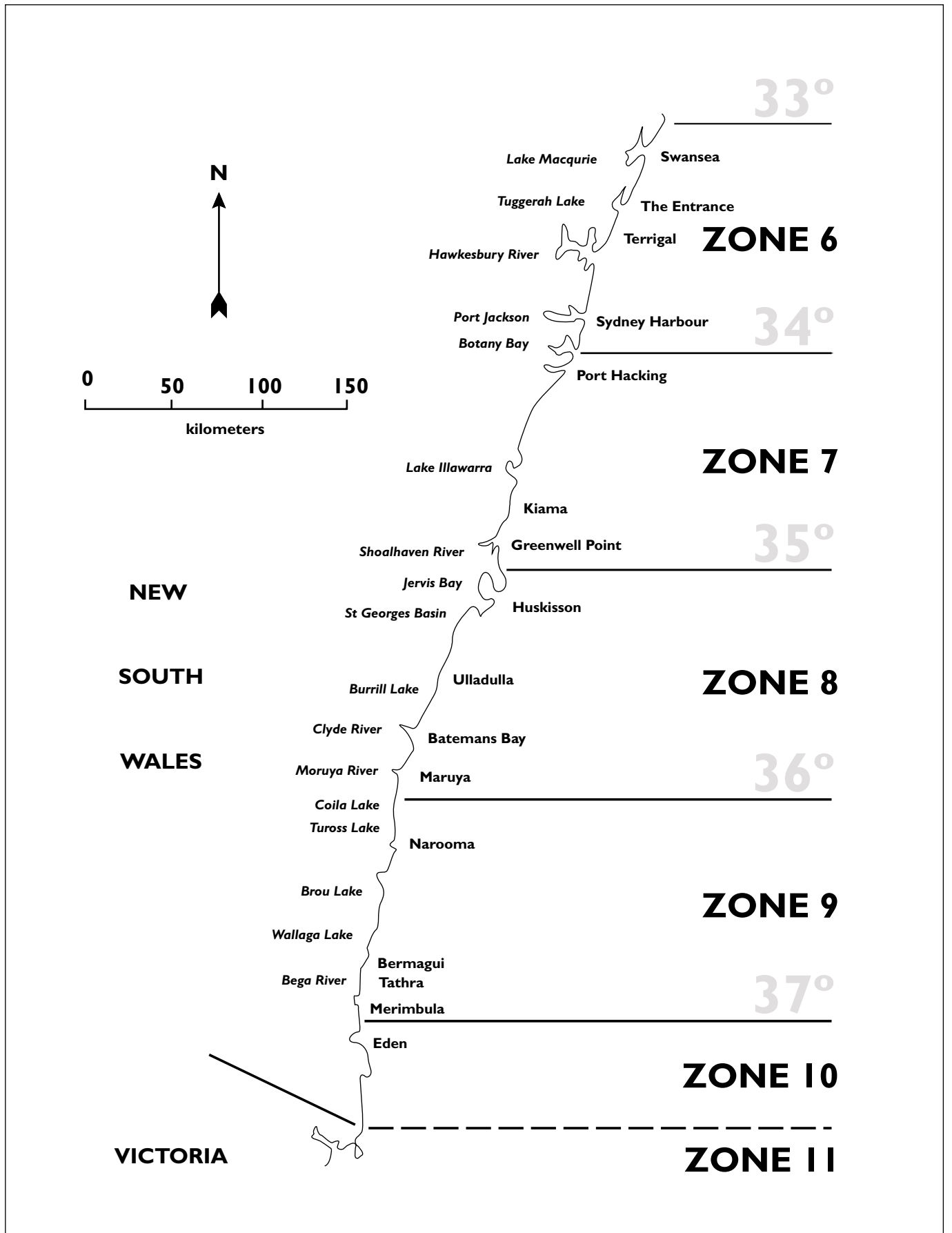
Group	Common NSW name	Scientific name ^a
FIn fish continued.	Barracouta	Thyrsites atun
	Perch (golden)	Macquaria ambigua
	Jewfish	Argyrosomus holoepidotus
	Carp	Cyprinus carpio
	Sweep	Scorpius lineolatus
	Bonito	Cybiosarda elegans
	Leatherjacket	Family monacanthidae
	Rainbow trout	Oncorhynchus mykiss
	Silver biddy	Geres subfasciatus
	Ribbonfish	Lepidopus caudatus
	Tailor	Pomatomus saltatrix
	Red gurnard	Chelidonichthys kumu
	Swordfish, broadbill	Xiphias gladius
	Murray cod	Maccullochella peelii
Crustaceans	Prawn	
	– school	Metapenaeus macleayi
	– greasyback	Metapenaeus bennettiae
	– tiger	Penaeus esculentus
	– eastern king	Penaeus plebejus
	Crab	
	– mud	Scylla serrata
	– blue swimmer	Portunus pelagicus
	– spanner	Ranina ranina
	Balmain bug	Ibacus peronii
Eastern rock lobster	Jasus verreauxi	
Molluscs	Sydney rock oyster	Saccostrea commercialis
	Abalone	Haliotis rubra
	Pipi	Plebidonax deltoides
	Cockle	Anadara trapezia
	Mussel (blue-lip)	Mytilus edulis
	Squid	Suborder teuthoidea
	Octopus	Order octopoda
	Cuttlefish	Suborder sepioidea
	Calamari	Sepioteuthis australis
<p>^a Where possible species or genus names are given. Where this level of detail is not available or is not normally used other taxonomic levels such as family, class, suborder and order are given. Source: Scribner and Kathuria (1996)</p>		

Appendix 3

New South Wales ocean zones

Catch locations for ocean species were coded using the zones depicted in the following maps. These maps were taken from the New South Wales Commercial Fisheries Statistics 1992/93 (Scribner and Kathuria 1996, pp. 6-7).





Analytical methods for metals

Fresh fish was purchased from major fish cooperatives along the NSW coast and aquaculture farms. In the case of fin fish, either the whole fish or fillets weighing a minimum of 100 g were purchased. Crustaceans were purchased in the shell, while cephalopod molluscs were purchased either as cleaned, whole specimens or as cleaned portions weighing a minimum of 100 g. Bivalve molluscs were purchased unopened and opened either in situ or at the Division of Analytical Laboratories. All samples were couriered in either a chilled or frozen state to the Division of Analytical Laboratories. Here approximately 100 g of muscle tissue (skin off for fin fish) was finely chopped and mixed in preparation for analysis.

Arsenic, cadmium, lead and selenium

Approximately 2 g portions of the previously prepared muscle tissue were digested with 4 mL of ultrapure nitric acid in a closed-vessel microwave digestion unit. The digests were diluted to a final volume of 50 mL with distillation quality water. Arsenic, cadmium, lead and selenium were then quantitated by Graphite Furnace Atomic Absorption Spectroscopy with Zeeman Background Correction. Instrument Operating Parameters were set to Instrument Manufacturers Recommendations. Blanks, quality control standards and standard reference materials (Australian Government Analytical Laboratories prawn and shark tissue) were tested with every batch of samples. Approximately every fifth sample was analysed in duplicate.

Inorganic arsenic

Inorganic arsenic was separated from organic arsenic by a distillation procedure. Approximately 5 g portions of muscle tissue were heated in a mixture of water, hydrochloric acid and hydrobromic acid. The distillate was collected and quantitated Graphite Furnace Atomic Absorption Spectroscopy with Zeeman Background Correction.

Copper

Approximately 2 g portions of the previously prepared muscle tissue were digested with 4 mL of ultrapure nitric acid in a closed-vessel microwave digestion unit. The digests were diluted to a final volume of 50 mL with distillation quality water. Copper was then quantitated by Flame Atomic Absorption Spectroscopy. Quality control procedures as described above were employed.

Mercury

Approximately 4 g portions of tissue were digested with a mixture of nitric, hydrochloric and sulphuric acids. The digests were quantitated for mercury using a Standard Cold Vapour Generation Procedure. Quality control procedures as described above were employed.