

Appendix 8

Marine Conservation Areas

First Order Priority Areas For Protection

Site	Category	Principal Interest
1.0 Indonesia Whale Sanctuary	IV	(all waters under Indonesian jurisdiction)
1.1 TL Cenderawasih-Kep. Auri	IV - X	(coral reefs, giant clams, nesting green and hawksbill turtles, dugongs)
1.2 Aru Tenggara	I	(coral reefs, seagrass, dugongs, nesting turtles)
1.3 Jamursba-Mandi	I	(nesting leatherback and green turtles)
1.4 Wewe-Koor	I	(nesting turtles)
1.5 Kakabia	I	(nesting seabird and turtles, coral reefs)
1.6 TL Bintuni	I	(estuary, mangrove)
1.7 Muara Gembong	IV	(estuary, mangrove)
1.8 Karimunjawa	II	(coral reef, nesting seabirds and green and hawksbill turtles)
1.9 Nusa Penida	III	(coral reef, nesting seabird)
1.10 Muara Kendawangan	I	(estuary, beach forest, mangrove, migratory shorebirds)
1.11 Perluasan Tanjung Puting	IV	(estuary, mangrove)
1.12 P.P. Bunaken	III	(coral reefs, giant clams, tourism)
1.13 Arakan	IV	(coral reefs, giant clams, dugongs)
1.14 Moromaho	I	(coral reef, nesting seabirds)
1.15 Suangi	I	(nesting seabirds)
1.16 Tg. Sinebu - P. Alang Besar	IV	(estuary, mangrove)
1.17 Bakau Muara Kaupas	IV	(mangrove, swamp forest)
1.18 Muara Bobos	I	(estuary, mangrove, dependent shrimp fisheries)
1.19 Muara Cimanuk	I	(estuary, mangrove, dependent fisheries)

Continued

Site	Category	Principal Interest
1.20	Cikapuh - Cibanteng seaward extension	I (green turtle mating area)
1.21	Bali Barat - P. Menjangan seaward extension	II (coral reefs, tourism)
1.22	Batugendang	III (nesting seabirds, coral reefs)
1.23	Komodo-Padar-Rinca seaward extension	II (coral reefs, straits, minor upwelling, feeding area for whales manta rays, whale sharks)
1.24	Pamukan	I (estuary)
1.25	TL Apar	I (estuary, mangrove, dependent shrimp fisheries)
1.26	TL Adang	I (estuary, mangrove, dependent shrimp fisheries)
1.27	P. Pasoso	III (coral reefs, nesting green turtles)
1.28	P.P. Togian	VIII (coral reefs, bays giant clams, coconut crabs, mangroves, nesting green and hawksbill turtles)
1.29	Sangi Sangiang	I (nesting seabirds, coral reefs)
1.30	Karompa Tjadi	I (nesting seabirds, coral reefs)
1.31	P.P. Penyu Lucipara	I (coral reefs, nesting green turtles and terns)
1.32	P. Mapia	IV (coral reefs, giant clams, coconut crabs, nesting green and hawksbill turtles)
1.33	Kuala Jambu Air	I (estuary, mangrove)
1.34	Kuala Langsa	I (estuary, mangrove)
1.35	Pangumbahan	VI (green turtles nesting and mating area)
1.36	Hutan Sambas Paloh	I (green turtles nesting and mating area)
1.37	Pleihari Tanah Laut seaward extension	IV (green turtle mating area)
1.38	P. Penyu	I (coral reef, giant clams, nesting green turtles)
1.39	Krakatau seaward extension	III (coral reef)
1.40	Ujung Kulon-P.Panaitan seaward extension	II (coral reef, bays, green and hawksbill turtle mating area)
1.41	Perairan Kangean Utara	IV (cays, coral reefs, seagrass, dugongs, nesting seabirds and green turtles)
1.42	Pantai Barat Kalimantan Selatan	I (nesting green turtles)
1.43	Muara Kayan	I (estuary, mangrove)

Continued

Site	Category	Principal Interest
1.44 Kep. Peleng-Banggai	VIII	(coral reefs, turtles, dugongs, giant clams)
1.45 Tg. Api seaward extension	I	(coral reefs)
1.46 Taka Bone Rate	VIII	(coral reefs, nesting green and hawksbill turtles, dugongs, giant clams)
1.47 Kep. Kai Barat-Tayandu	VIII	(coral reefs, nesting seabirds, possibly coconut crabs)
1.48 Raja Ampat	IV	(coral reefs, nesting green and hawksbill turtles)
1.49 Kep. Sermata Barat	VIII	(coral reefs)

Appendix 9

Occurrence of Endemic Birds and Mammals in Protected Areas

Mammals Endemic to Sumatra

Species	Reserves				
	Gn.Leuser	Kerinci-Seblat	Barisan Selatan	Way Kambas	Taitaibatti
<i>Crocidura beccari</i>					
<i>Crocidura lepidura</i>					
<i>Crocidura neglecta</i>					
<i>Crocidura paradoxura</i>					
<i>Crocidura vosmaeri</i>					
<i>Crocidura webewri</i>					
<i>Hipposiderus breviceps</i>				*	
<i>Myotis hermani</i>					
<i>Tadarida doriae</i>					
<i>Macaca pagensis</i>				*	
<i>Presbytis thomasi</i>	*				
<i>Presbytis potenziani</i>				*	
<i>Simias concolor</i>				*	
<i>Hylobates</i>				*	
<i>Nesolagus netscheri</i>		*			
<i>Callosciurus albescerus</i>	*				
<i>Callosciurus melanogaster</i>				*	
<i>Sundasciurus fraterculus</i>				*	
<i>Lariscus obscurus</i>				*	
<i>Iomy sipora</i>				*	
<i>Hylopetes sipora</i>				*	
<i>Rattus hoogerwerfi</i>	*				
<i>Rattus atchinus</i>	?				
<i>Rattus blangorum</i>					
<i>Rattus enganus</i>					
<i>Rattus simalurensis</i>					
<i>Maxomys hylomyoides</i>		*			
<i>Maxomys inflatus</i>		*			
<i>Maxomys pagensis</i>					
<i>Thecurus sumatrae</i>					
<i>Chiropodomys karlpoopmani</i>					
<i>Mustela hamakeri</i>		*			
<i>Dobsonia brooksi</i>					

Continued

Mammals Endemic to Java and Bali

Species	Reserves				
	Ujung Kulon	Gn. Gede	Baluran	Meru Betiri	Bali Barat
<i>Megaerops kusnotoi</i>		?			
<i>Rhinolophus importunus</i>					
<i>Rhinolophus javanicus</i>	?				
<i>Rhinolophus madurensis</i>			?		?
<i>Myotis bartelsi</i>		*			
<i>Murina halstoni</i>					
<i>Pipistrellus mordax</i>					
<i>Glischropus javanus</i>		*			
<i>Miniopterus rufus</i>					
<i>Otomops formosus</i>		*			
<i>Tadarida labiatus</i>	?	*			
<i>Presbytis comata</i>	*	*			
<i>Trachypithecus auratus</i>	*	*	*	*	*
<i>Hylobates moloch</i>	*	*			
<i>Petinomys bertelsi</i>	?	*			
<i>Petinomys sagitta</i>		*			
<i>Rattus bartelsi</i>	?	*			
<i>Rattus maxi</i>					
<i>Sus v. ucosus</i>	?	*		*	
<i>Rhinoceros sondaicus</i>	*	e			
<i>Mus vulcani</i>					
<i>Niviventer lepturus</i>					

Continued

Birds Endemic to Java and Bali

Species	Reserves				
	Ujung Kulon	Gn. Gede	Baluran	Meru Betiri	Bali Barat
<i>Spizaetus bartelsi</i>		*		*	
<i>Arborophila javanica</i>		*			
<i>Loriculus pusillus</i>	*	*	*	*	*
<i>Vanellus macropterus</i>					
<i>Otus angelinae</i>		*			
<i>Halcyon cyanoventris</i>	*	*	*		*
<i>Megalaima armillaris</i>		*			*
<i>Megalaima corvina</i>		*			
<i>Megalaima javensis</i>	*	*	*	*	
<i>Stachyris grammiceps</i>	*	*			
<i>Stachyris thoracica</i>		*			
<i>Stachyris melanothorax</i>	*	*		*	*
<i>Macronous flavicollis</i>	*		*	*	
<i>Garrulax rufifrons</i>		*			
<i>Lcippe phyrroptera</i>		*			
<i>Crocius albonotatus</i>		*			
<i>Tesia superculiaris</i>		*			
<i>Rhipidura phoenicura</i>		*			
<i>Psaltria exilis</i>		*			
<i>Aethopyga eximia</i>		*			
<i>Lophozosterops javanica</i>		*			
<i>Padda oryzivora</i>	*	*	*	*	*
<i>Leucopsar rothschildi</i>					*
<i>Sturnus melanopterus</i>			*	*	*
<i>Rhipidura euryura</i>		*			

Continued

Endemic Mammals of Borneo

Species	Reserves						
	Kinibalu	Gn.Palung	Karimun & Bentuang	Tn.Puting	Kutai	Ky.Mentarang	Gn Niut
<i>Suncus ater</i>	*				*		
<i>Tupaia splendidul</i>							*
<i>Tupaia montana</i>							*
<i>Tupaia gracilis</i>			*				*
<i>Tupaia picta</i>						?	
<i>Tupaia dorsalis</i>		*					
<i>Dendrogale melanura</i>	*						
<i>Hipposiderus dyacorum</i>							
<i>Hipposiderus coxi</i>							
<i>Pipistrellus kistcheneri</i>							
<i>Presbytis hosei</i>	*	*					
<i>Presbytis rubicunda</i>	*	*	*	*	*	*	*
<i>Presbytis frontata</i>	*	*	*				
<i>Nasalis larvatus</i>	*	*	*				
<i>Hylobates muelleri</i>	*	*	*	*	*		
<i>Callosciurus baluensis</i>	*						
<i>Callosciurus orestes</i>	*	*	*				
<i>Callosciurus adamsi</i>	*	*					
<i>Sundasciurus jetinki</i>	*						
<i>Sundasciurus brookei</i>	*	*	*	*			
<i>Glyphotes canalicus</i>							
<i>Glyphotes simus</i>	*						
<i>Lariscus hosei</i>	*						
<i>Dremomys everetti</i>	*						
<i>Exilisciurus exilis</i>	*	*	*				
<i>Exilisciurus whiteheadi</i>	*	*	*				
<i>Rheithrosciurus macrotis</i>	*	*	*				
<i>Petaurillus hosei</i>							
<i>Petaurillus emiliae</i>							
<i>Aeromys thomasi</i>							
<i>Thecurus crassipinis</i>	*	*	*	*			
<i>Rattus baluensis</i>	*						
<i>Rattus alticola</i>	*						
<i>Rattus ochraceiventer</i>	*						
<i>Rattus baeodon</i>	*						
<i>Maxomys ochraceiventer</i>	*						
<i>Chiropodomys major</i>							
<i>Chiropodomys muroides</i>	*						
<i>Haeromys margarettae</i>	*						
<i>Haeromys pusillus</i>	*						
<i>Hemigalus hosei</i>	*						
<i>Herpestes hosei</i>							
<i>Felis badia</i>	?						
<i>Muntiacus atherodes</i>	*	*	*				

Source : MacKinnon et al., 1991.

Continued

Occurrence of Endemic Birds in Bornean Reserves

Species	Reserves														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
<i>Arachnothera juliae</i>								*	*						
<i>Arborophila hyperythra</i>								*	*						
<i>Batrachostomus harterti</i>														*	
<i>Bradypterus accentor</i>								*							
<i>Calyptomena hosei</i>								*	*						
<i>Calyptomena whiteheadi</i>								*	*						
<i>Cettia whiteheadi</i>								*	*						
<i>Chlamydochaera jefferyi</i>							*	*	*				*		
<i>Chlorocharis emiliae</i>								*	*						
<i>Cyornis superba</i>	*	*		*			*			*					
<i>Haematortyx sanguiniceps</i>				*	*										
<i>Harpactes whiteheadi</i>								*	*						*
<i>Lonchura fuscans</i>	*	*	*	*	*	*	*	*		*	*	*			*
<i>Lophura bulweri</i>				*	*	*			*	*			*	*	
<i>Megalaima eximia</i>				*				*	*	*	*				
<i>Megalaima monticola</i>							*	*	*						*
<i>Megalaima pulcherrima</i>								*	*						
<i>Microheirax latifrons</i>	*	*						*							
<i>Napothera atrigularis</i>		*							*						
<i>Napothera crassa</i>								*	*	*					
<i>Oculocincta squamifrons</i>				*				*							
<i>Oriolus hosei</i>															
<i>Pachycephala hypoxantha</i>							*	*	*						
<i>Pitta arquata</i>				*				*	*						
<i>Pitta baudii</i>	*		*	*	*				*						
<i>Pityriasis gymnocephala</i>	*	*	*	*	*							*			
<i>Ptilocichla leucogrammica</i>			*	*					*			*			
<i>Spilornis kinabaluensis</i>								*	*						
<i>Zoothera everetti</i>								*	*						

A = Ulu Barito
 B = Danau Valley (MI)
 C = Tabin (MI)
 D = Samunsam (MI)
 E = Gn.Lotung/Maliau (MI)
 MI = Malaysia

F = Danau Sentarum
 G = Gunung Niut
 H = Kinabalu(MI)
 I = Gunung Mulu(MI)
 J = Lanjak Entimau (MI)

K = Kutai
 L = Pleihari Martapura
 M = Bukit Raya/Baka
 N = Tanjung Puting
 O = πGunung Palung

Source : MacKinnon et al., 1991.

Continued

Distribution of Birds Species Endemic to Sulawesi

Species	Islands Reserves											
	Md	Sa	Ta	Bg	M/B	Tg	Su	LL	T	M	DB	RA
<i>Spilornis rufipectus</i>	*	*	*	*	*	*	*					
<i>Accipiter griseiceps</i>	*	*	*	*	*							
<i>Accipiter nanus</i>	*								*	*		
<i>Accipiter rhodogaster</i>	*			*	*		*	*	*	*		
<i>Accipiter trinotatus</i>	*						*	*	*		*	
<i>Spizaetus lancolatus</i>	*							*		*	*	
<i>Macrocephalon maleo</i>	*							*	*	*	*	*
<i>Megapodius bernsteini</i>				*			*					
<i>Dramidopsis plateni</i>	*											
<i>Gymocrex rosenbergii</i>	*			*				*				
<i>Amaurornis isabellina</i>	*							*	*	*		
<i>Scolopax celebensis</i>	*							*		*		
<i>Turacoena manadensis</i>	*			*	*	*	*	*	*	*	*	
<i>Gallicolumba tristigmata</i>	*							*		*	*	
<i>Ptilinopus fischeri</i>	*							*		*	*	
<i>Ptilinopus subularis</i>	*			*			*	*	*	*	*	
<i>Ducula forsteni</i>	*							*	*	*	*	
<i>Ducula radiata</i>	*							*	*	*	*	
<i>Ducula luctuosa</i>	*			*	*		*	*	*	*	*	*
<i>Cryptophaps poecilorrhhoa</i>	*							*				
<i>Eos histrio</i>		*	*									
<i>Trichoglossus ornatus</i>	*		*	*	*	*			*	*	*	*
<i>T. flavoviridis</i>	*						*	*		*	*	
<i>Prioniturus platurus</i>	*		*	*	*	*	*	*	*	*	*	
<i>P. flavinornis</i>									*		*	
<i>flavicans</i>	*					*			*		*	
<i>Loriculus stigmatus</i>	*				*	*		*	*	*	*	
<i>L. exilis</i>	*							*				
<i>L. catamene</i>		*										
<i>Tanygnathus sumatranus</i>	*	*	*	*	*	*	*	*	*		*	
<i>Cuculus crassirostris</i>	*											
<i>Paenicophaeus calorynchus</i>	*	*		*	*	*		*	*	*	*	
<i>Centropus celebensis</i>	*				*	*		*	*	*	*	
<i>Ninox ochracea</i>	*			*				*	*	*		
<i>N. Punctulata</i>	*							*		*		
<i>Tyto rosenbergii</i>	*	*		*				*		*		
<i>T. inexpectata</i>	*							*	*			
<i>T. nigrobrunnea</i>									*			
<i>Eurostopodus diabolicus</i>	*								*			
<i>Ceyx fallax</i>	*	*						*	*	*	*	
<i>Pelargopsis melanorhyncha</i>	*			*	*	*	*	*	*	*	*	
<i>Cittura cyanotis</i>	*	*						*	*		*	
<i>Halcyon enigma</i>			*									

Continued

Species	Islands Reserves											
	Md	Sa	Ta	Bg	M/B	Tg	Su	LL	T	M	DB	RA
<i>Actenoides monacha</i>	*							*	*	*	*	
<i>A. princeps</i>	*							*	*	*	*	
<i>Meropogon forsteni</i>	*							*	*	*	*	
<i>Coracias temminckii</i>	*				*			*	*	*	*	*
<i>Penelopides exarhatus</i>	*				*			*	*	*	*	
<i>Rhyticeros cassidix</i>	*				*	*		*	*	*	*	
<i>Mulleripicus fulvus</i>					*			*	*	*	*	
<i>Picoides temminckii</i>	*					*		*			*	
<i>Dendrocopos temminckii</i>							*					
<i>Corracina sula</i>											*	
<i>C. schistacea</i>	*			*			*					
<i>C. temminckii</i>	*							*	*	*		
<i>C. bicolor</i>	*				*	*			*		*	
<i>C. leucopygia</i>	*				*			*	*	*	*	
<i>C. abbottii</i>	*							*		*		
<i>C. adithae</i>												
<i>Trichastoma celebensis</i>	*					*		*				
<i>Heinrichia calligyna</i>	*									*		
<i>Geomalia heinrichi</i>	*							*		*		
<i>Cataponera turdoides</i>	*							*				
<i>Zoothera erythronata</i>	*			*					*		*	
<i>Phylloscopus sarasinorum</i>	*											
<i>Orthotomus cucullatus</i>	*							*				
<i>Trichostoma celebensis</i>								*	*	*	*	
<i>Malia grata</i>								*		*	*	
<i>Rhinomyias colorus</i>												
<i>Ficedula rufigula</i>	*							*			*	
<i>F. bonthaina</i>	*											
<i>Cyornis hoevelli</i>	*							*				
<i>C. sanfordi</i>	*											
<i>Rhipidura teijsmanni</i>	*						*	*		*	*	
<i>Eutrichomyias rowleyi</i>	*	*										
<i>Hylocitrea boensis</i>								*		*		
<i>Coracornis raveni</i>	*											
<i>Pachycephala sulvouriventris</i>								*	*			
<i>Dicaeum aureolimbatum</i>	*				*			*	*	*	*	
<i>D. nehrkorni</i>	*							*	*	*		
<i>D. celebicum</i>	*				*			*			*	
<i>Aetihopyga duyvenbodei</i>		*										
<i>Zosterops concobrinorum</i>												
<i>Z. anomala</i>												
<i>Lophozosterops squamiceps</i>								*		*	*	
<i>Myza celebensis</i>	*							*		*	*	
<i>M. sarasinorum</i>	*							*	*	*		
<i>Streptocitta albicollis</i>	*				*			*	*	*	*	

Continued

Species	Islands Reserves											
	Md	Sa	Ta	Bg	M/B	Tg	Su	LL	T	M	DB	RA
<i>S. albertina</i>												
<i>Enodes erythrophris</i>	*							*			*	
<i>Scissirostrum dubium</i>				*	*	*		*	*	*	*	
<i>Basilornis celebensis</i>	*							*	*	*		
<i>B. galeatus</i>				*								
<i>B. corythaix</i>												
<i>Dicrurus montanus</i>								*	*	*	*	
<i>Artamus monachus</i>	*			*			*	*	*	*	*	
<i>Corvus typicus</i>	*				*			*		*		

Md = Sulawesi mainland
 Sa = Sangihe
 Ta = Talaud

Bg = Banggai
 M/B = Muna/Buton
 Tg = Togian

Su = Sula
 LL = Lore Lindu
 T = Tangkoko

M = Morowali
 DB = Dumoga Bone
 RA = Rawa Aopa

Source · WWF, 1990a; 1980b; 1981a, 1981b; Whitten et al., 1987.

underline genus endemic e.g. *Scissirostrum*

Continued

Endemic Mammal Species in Maluku

Species	Islands												
	M	S	Bu	Am	Ba	K	Mo	H	Bn	Ma	W	O	T
<i>Crocidura tenuis</i>													*
<i>Rhynchomeles prattorum</i>	*	*											
<i>Pteropus ocularis</i>		*	*										
<i>Dobsonia viridis</i>		*	*	*	*	*							
<i>Dobsonia crenulata</i>							*	*	*				
<i>Rhinolophus keyensis</i>		*				*			*				
<i>Rhinolophus toxopeusi</i>			*										
<i>Myotis stalker</i>						*							
<i>Melomys aerosus</i>	*	*											
<i>Melomys obiensis</i>												*	
<i>Pogonomelomys fraterculus</i>	*	*											
<i>Nesoromys ceramicus</i>	*	*											
<i>Melomys fulgens</i>	*	*											
<i>Pteropus melanopogon</i>	*									*			
<i>Pteropus chrysoproctus</i>	*									*			

Continued

Maluku Endemic Reptiles

Species	Islands												
	A	S	Bu	Am	Ba	K	Mo	H	Bn	NM	W	O	T
<i>Draco ochropterus</i>						*							
<i>Lygosoma consortium</i>										*			
<i>Lophura weberi</i>													
<i>Lygosoma kuhnei</i>						*							
<i>Lygosoma beccari</i>						*							
<i>Lygosoma breviceps</i>										*			
<i>Lygosoma mentoarium</i>										*			
<i>Typhlops kradi</i>						*							
<i>Cylindrophis boulengeri</i>											*		
<i>Dendrolaphus modestus</i>										*			
<i>Tripodonotus truncatus</i>										*			
<i>Tripodonotus elongatus</i>		*		*									
<i>Tripodonotus punctuventris</i>										*			
<i>Tripodonotus halmahericus</i>										*			
<i>Calamorphidium kukonthali</i>										*			
<i>Calamaria ceramensis</i>		*		*									
<i>Hydnophis mertoni</i>	*												

A = Aru
S = Seram
Bu = Buru
Am = Ambon
Ba = Banda
K = Kai

Bn = Bacan
NM = Maluku
W = Wetar
O = Obi
T = Timor
M = Manusela

Continued

Bird Species Endemic to Maluku

Species	Islands										
	H	Mo	O	Bn	S	Se	M	Bu	W	T	K
<i>Accipiter henicogrammus</i>	*			*							
<i>Accipiter griseogularis</i>											
<i>Gymnocyrex plumbeiventris</i>	*	*		*							
<i>Habroptila wallacei</i>	*										
<i>Scolopax roschussenii</i>	*		*	*							
<i>Ptilinopus monacha</i>	*	*	*	*							
<i>Ptilinopus hyogaster</i>	*	*		*							
<i>Ptilinopus granulifrons</i>			*								
<i>Ptilinopus bernsteinii</i>	*		*	*							
<i>Lorius garrulus</i>	*	*	*	*							
<i>Cacatua alba</i>	*		*	*							
<i>Cuculus heinreichi</i>	*			*							
<i>Centropus goliath</i>	*	*	*	*							
<i>Aegotheles crinifrons</i>	*			*							
<i>Halcyon diops</i>	*	*	*	*							
<i>Halcyon funebris</i>	*										
<i>Eurystomus azureus</i>	*			*							
<i>Pitta maxima</i>	*	*		*							
<i>Coracina parvula</i>	*										
<i>Lalage aurea</i>	*	*	*	*							
<i>Zosterops atriceps</i>	*	*		*							
<i>Philemon gilolensis</i>	*										
<i>Philemon fuscicapillus</i>	*	*		*							
<i>Oriolus phaeochromus</i>	*										
<i>Lylocorax pyrrhopterus</i>	*	*	*	*							
<i>Semioptera wallacei</i>	*			*							
<i>Corvus validus</i>	*	*	*	*							
<i>Tyto nigrobrunnea</i>					*						
<i>Coracina sula</i>					*						
<i>Coracina schistacea</i>					*						
<i>Basilornis galeatus</i>					*						
<i>Streptocitta albertinae</i>					*						
<i>Megapodius bernsteinii</i>					*						
<i>Eos semilarvata</i>						*	*				
<i>Lorius domicellus</i>						*	*				
<i>Cacatua moluccensis</i>						*	*				
<i>Halcyon lazuli</i>						*	*				
<i>Rhipidura dedemi</i>						*	*				
<i>Monarcha boanensis</i>						*	*				
<i>Dicaeum vulneratum</i>						*	*				
<i>Zosterops kuehni</i>						*	*				
<i>Tephozosterops stalker</i>						*	*				
<i>Lophozosterops pinaiae</i>						*	*				
<i>Lichimera monticola</i>						*	*				

Continued

Species	Islands										
	H	Mo	O	Bn	S	Se	M	Bu	W	T	K
<i>Myzomela blazii</i>						*	*				
<i>Philemon subcorniculatus</i>						*	*				
<i>Oriolus forsteni</i>						*	*				
<i>Chamosyna toxozei</i>								*			
<i>Prioniturus mada</i>								*			
<i>Tanygnathus gramineus</i>								*			
<i>Rhinomyias addita</i>								*			
<i>Rhinomyias superflua</i>								*			
<i>Monarcha loricatus</i>								*			
<i>Zosterops buruensis</i>								*			
<i>Madanga ruficollis</i>								*			
<i>Lichmera deningeri</i>								*			
<i>Ficedula heinrichii</i>									*		
<i>Lichmera notabilis</i>									*		
<i>Myzomela kuehni</i>									*		
<i>Philemon citreogularis</i>									*		
<i>Sphecopteres hypoleucos</i>									*		
<i>Eos reticulata</i>										*	
<i>Zoothera schistacea</i>										*	
<i>Zoothera nachiki</i>										*	
<i>Microeca hemixantha</i>										*	
<i>Rhipidura opistherythra</i>										*	
<i>Aplonis crassa</i>										*	
<i>Centropus spilopterus</i>											*
<i>Monarcha leucurus</i>											*
<i>Zosterops uropygialis</i>											*
<i>Zosterops grayi</i>											*
<i>Ophcotheres flaviventris</i>											*
<i>Accipiter erythrauchen</i>	*	*	*	*		*	*	*			
<i>Ducula perspicillata</i>	*	*	*	*		*	*	*			
<i>Gymnophaps mada</i>						*	*	*			
<i>Eos bornea</i>						*	*	*			*
<i>Micropsitta bruijni</i>											
<i>Chrysococcyx crassirostris</i>						*	*			*	*
<i>Coracina atriceps</i>	*			*		*					
<i>Coracina ceramensis</i>			*			*		*			
<i>Coracina dispar</i>										*	*
<i>Zoothera dumasi</i>						*		*			

Species	Islands										
	H	Mo	O	Bn	S	Se	M	Bu	W	T	K
<i>Ficedula buruensis</i>						*		*			*
<i>Rhipidura fusciorufa</i>										*	
<i>Myiagra galatea</i>	*	*	*	*		*	*	*			*
<i>Monarcha pileatus</i>	*							*		*	
<i>Pachycephala griseonata</i>		*	*	*	*	*		*			*
<i>Dicaeum erythrothorax</i>	*	*	*	*				*			
<i>Lichmera squamata</i>									*	*	*

H = Halmahera

Mo = Morotai

O = Obi

Bn = Bacan

S = Sula

Se = Seram (including Ambon).

M = Manusela

Bu = Buru

W = Wetar

T = Tanimbar

K = Kai

Mammals Endemic to Irian Jaya

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Zaglossus bruijni</i>	*	*	*		
<i>Antechinus melanurus</i>	*	*	*	*	*
<i>Antechinus naso</i>	*	*	*	*	
<i>Antechinus wilhelmina</i>			*		
<i>Dasyurus albopunctatis</i>	*	*	*	*	*
<i>Dasyurus geoffroi</i>			*		*
<i>Murexia longicaudata</i>	*	*	*	*	*
<i>Myoictis melas</i>	*		*	*	*
<i>Neophascogale lorentzi</i>			*		
<i>Phascosorex doriae</i>	*	*	*	*	
<i>Phascosorex dorsalis</i>	*	*	*		
<i>Planigale novaeguinea</i>					*
<i>Sminthopsis archeri</i>			?		
<i>Echymipera clara</i>				*	
<i>Echymipera kalubu</i>	*	*	*	*	*
<i>Microperoryctes murina</i>	*		*		
<i>Peroryctes longicauda</i>	*	*	*	*	
<i>Peroryctes raffrayanus</i>	*		*	*	
<i>Phalnger leucippus</i>					
<i>Phalnger interpositus</i>					
<i>Phalnger carmelitae</i>					
<i>Phalnger gymnotis</i>	*	*	*	*	*
<i>Phalnger vestitus</i>	*	*	*	*	
<i>Spilocuscus rufoniger</i>					
<i>Spilocuscus papuensis</i>					
<i>Distuechurus pennatus</i>	*	*		*	*
<i>Dactylopsila megalura</i>	*	*		*	
<i>Dactylopsila palpator</i>			*	*	
<i>Pseudocheirus albertisi</i>	*	*		*	
<i>Pseudocheirus canecens</i>	*	*	*	*	
<i>Pseudocheirus caroli</i>			*		
<i>Pseudocheirus corinnae</i>			*		
<i>Pseudocheirus cupreus</i>			*	*	
<i>Pseudocheirus forbesi</i>	*	*	*	*	
<i>Pseudocheirus mayeri</i>		*	*	*	
<i>Pseudocheirus schlegeli</i>	*	*			
<i>Dendrogalus dorianus</i>			*		
<i>Dendrogalus matschiei</i>					
<i>Dendrogalus inustus</i>	*	*		*	
<i>Dendrogalus ursinus</i>	*	*			
<i>Darcopsis hageni</i>					
<i>Darcopsis mysoliae</i>					

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Darcopsis vanheurni</i>	*		*		
<i>Darcopsis muelleri</i>					
<i>Darcopsis veterum</i>					
<i>Thylogale bruijni</i>			*		
<i>Thylogale christensoni</i>					
<i>Aproteles bulmerae</i>					
<i>Dobsonia beauforti</i>					
<i>Dobsonia minor</i>	*	*		*	
<i>Dobsonia emersa</i>					
<i>Nyctimene aello</i>	*	*	*		*
<i>Nyctimene cyclotis</i>	*	*		*	*
<i>Paranyctimene raptor</i>	*	*		*	*
<i>Pteropus macrotis</i>	*	*		*	*
<i>Pteropus neohibernicus</i>	*	*		*	*
<i>Pteropus pohlei</i>					
<i>Emballonura beccarii</i>	*	*	*	*	*
<i>Emballonura furax</i>	*	*	*	*	*
<i>Hipposiderus maggietaaylorae</i>	*				
<i>Hipposiderus papua</i>					
<i>Hipposiderus wollastoni</i>			*		
<i>Kerivoula muscina</i>	*		*		*
<i>Pipistrellus papuanus</i>					
<i>Anisomys imitator</i>				*	
<i>Lorentzimys nouhuysi</i>	*	*		*	*
<i>Macruromys elegans</i>			*		
<i>Macruromys major</i>			*	*	
<i>Mallomys rothschildi</i>			*		
<i>Melomys albidens</i>			*		
<i>Melomys leucogaster</i>			*	*	
<i>Melomys levipes</i>	*	*	*	*	*
<i>Melomys lorentzi</i>	*	*	*	*	*
<i>Melomys moncktoni</i>			*		*
<i>Melomys platyops</i>	*		*	*	*
<i>Melomys rubex</i>	*		*	*	
<i>Melomys rufescens</i>	*		*	*	*
<i>Pogonomelomys bruijni</i>	*	*			*
<i>Pogonomelomys mayeri</i>	*	*	*		
<i>Pogonomelomys ruemmleri</i>			*		
<i>Pogonomelomys lorae</i>	*		*		
<i>Pogonomelomys macrourus</i>	*		*		*
<i>Pogonomelomys sylvestris</i>	*		*		
<i>Rattus jobiensis</i>					
<i>Rattus niobe</i>	*		*	*	
<i>Rattus richardsoni</i>					

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Rattus verecundus</i>	*	*			
<i>Rattus steini</i>			*		
<i>Uromys anak</i>	*	*	*	*	
<i>Ienoromys barbatus</i>					
<i>Hydromys habbema</i>	*	*			
<i>Hydromys hussoni</i>					
<i>Hydromys goliath</i>	*			*	
<i>Microhydromys richardsoni</i>					
<i>Neohydromys fuscus</i>					
<i>Leptomys elegans</i>	*				
<i>Parahydromys asper</i>	*	*		*	*
<i>Parahydromys wilhelmina</i>	*			*	
<i>Parahydromys rufilatus</i>					
<i>Pseudohydromys occidentalis</i>					
<i>Melidectes fuscus</i>			*		
<i>Melidectes nouhuysi</i>			*		
<i>Melidectes ochromelas</i>	*	*	*	*	
<i>Melidectes leucostephes</i>	*	*			
<i>Melidectes belfordi</i>			*		
<i>Melidectes rufocrissalis</i>			*		
<i>Melidectes torquatus</i>	*	*	*		
<i>Melidectes gymnops</i>		*			
<i>Melidectes fumigatus</i>			*		
<i>Erythrura papuana</i>	*	*	*		
<i>Lonchura leucosticta</i>			*		*
<i>Lonchura tristissima</i>	*	*	*	*	
<i>Lonchura vana</i>	*	*			
<i>Lonchura nevermanni</i>					*
<i>Lonchura grandis</i>				*	
<i>Lonchura stygia</i>					*
<i>Lonchura teerinki</i>			*		
<i>Lonchura montana</i>			*		
<i>Oreostruthus fuliginosus</i>			*		
<i>Aplonis mystacea</i>			*		*
<i>Mino anais</i>			*	*	*
<i>Oriolus szalayi</i>	*	*	*	*	*
<i>Chaetorhynchus papuensis</i>	*	*	*	*	
<i>Grallina bruijnii</i>	*				
<i>Artamus maximus</i>	*	*	*	*	
<i>Peltops blainvillii</i>			*	*	*
<i>Peltops montanus</i>			*	*	
<i>Ailuroedus buccoides</i>	*	*	*	*	*
<i>Archboldia papuensis</i>			*		
<i>Amblyornis inornatus</i>	*	*			

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Amblyornis macgrigoriae</i>			*		
<i>Amblyornis flavifrons</i>				*	
<i>Sericulus aurens</i>	*	*	*		
<i>Chlamydera lauterbachii</i>			*		
<i>Cnemophilus loriae</i>					
<i>Loboparadisea sericea</i>			*		
<i>Macgregoria pulchra</i>			*		
<i>Manucodia chalybata</i>	*	*	*	*	
<i>Manucodia jobiensis</i>			*	*	
<i>Paradigalla carunculata</i>	*		*		
<i>Paradigalla brevicauda</i>			*		
<i>Seleucidis melanoleuca</i>	*	*	*	*	*
<i>Epimachus albertisi</i>	*	*			
<i>Epimachus bruijnii</i>					
<i>Epimachus fastosus</i>	*	*	*		
<i>Epimachus meyeri</i>			*		
<i>Astrapia nigra</i>	*	*			
<i>Astrapia splendidissima</i>			*		
<i>Lophorina superba</i>	*	*	*		
<i>Parotia sefilata</i>		*			
<i>Parotia carolae</i>			*	*	
<i>Pteridophora alberti</i>			*		
<i>Cicinnurus regius</i>	*	*	*	*	*

Continued

Birds Endemic to Irian Jaya

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Casuarius bennetti</i>		*	*	*	
<i>Casuarius unappendiculatus</i>	*	*		*	
<i>Zonotrichia heliosylus</i>		*	*		*
<i>Hemicopernis longicauda</i>	*	*	*	*	*
<i>Accipiter buergeri</i>				*	
<i>Megatriorchis doriae</i>	*	*	*	*	*
<i>Harpyopsis novaeguineae</i>	*	*	*	*	*
<i>Anas waigiuiensis</i>					
<i>Talegalla cuvieri</i>	*	*	*		
<i>Talegalla fuscirostris</i>			*		*
<i>Talegalla jobiensis</i>				*	
<i>Aepyodius arfakianus</i>	*	*	*	*	
<i>Aepyodius bruijnii</i>					
<i>Anurophasis monorthonyx</i>			*		
<i>Rallina rubra</i>	*		*		
<i>Rallina leucopsila</i>	*	*			
<i>Rallina forbesi</i>					
<i>Rallina mayri</i>				*	
<i>Megacrex inepta</i>			*		*
<i>Henicophaps albifrons</i>	*	*		*	*
<i>Gallicolumba rufigula</i>	*	*	*	*	*
<i>Trugon terrestris</i>	*	*	*	*	*
<i>Otidiphaps nobilis</i>	*	*	*	*	
<i>Goura cristata</i>	*	*			
<i>Goura scheepmakeri</i>			*		*
<i>Goura victoria</i>				*	
<i>Ptilinopus ornatus</i>	*	*	*	*	*
<i>Ptilinopus coronulatus</i>	*	*	*	*	*
<i>Ptilinopus pulchellus</i>	*	*	*	*	*
<i>Ptilinopus iozonus</i>			*	*	*
<i>Ptilinopus nanus</i>	*	*	*	*	*
<i>Ducula rufigaster</i>	*	*	*	*	*
<i>Ducula chalconata</i>	*	*	*		
<i>Ducula muellerii</i>			*	*	*
<i>Ducula zoeae</i>	*	*	*	*	*
<i>Chalcopsitta atra</i>	*	*	*		
<i>Chalcopsitta duivenbodei</i>				*	
<i>Chalcopsitta scintillata</i>					*
<i>Pseudeos fuscata</i>	*	*		*	*
<i>Trichoglossus goldiei</i>			*		
<i>Lorius lory</i>	*	*	*	*	*
<i>Charmosyna multistriata</i>			*		
<i>Charmosyna wilhelmina</i>	*	*	*		

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Charmosyna rubronotata</i>	*	*	*	*	
<i>Charmosyna josefinae</i>	*	*	*	*	
<i>Charmosyna papou</i>	*	*	*		
<i>Oreopsittacus arfaki</i>	*	*	*		
<i>Neopsittacus musschenbroekii</i>	*	*	*	*	
<i>Neopsittacus pullicauda</i>			*		
<i>Cyclopsitta guhelmuterti</i>					
<i>Psittaculirostris desmarestii</i>	*	*	*		*
<i>Psittaculirostris edwardsii</i>					
<i>Psittaculirostris salvadorii</i>			*	*	
<i>Psittacella brehmii</i>		*	*		
<i>Psittacella picta</i>			*		
<i>Psittacella modesta</i>	*	*	*		
<i>Psittacella madaraszi</i>			*		
<i>Geoffroyus simplex</i>	*	*	*	*	
<i>Psittichas fulgidus</i>	*	*	*	*	
<i>Alisterus chloropterus</i>		*	*		*
<i>Rhamphomantis megarhynchus</i>	*	*		*	
<i>Chrysococcyx ruficollis</i>	*		*		
<i>Chrysococcyx meyerii</i>	*	*	*	*	
<i>Caliechthrus leucolophus</i>	*	*	*	*	
<i>Microdynamis parva</i>	*	*	*	*	*
<i>Centropus menbeki</i>	*	*	*	*	*
<i>Centropus chalybeus</i>					
<i>Centropus bernsteini</i>	*	*	*	*	*
<i>Uroglaux dimorpha</i>	*	*	*	*	*
<i>Aegotheles insignis</i>	*		*		
<i>Aegotheles wallacii</i>	*	*	*		*
<i>Aegotheles albertisi</i>	*	*			
<i>Aegotheles archboldi</i>			*		
<i>Eurostopodus papuensis</i>	*	*	*	*	*
<i>Eurostopodus archboldi</i>			*		
<i>Collocalia hirundinacea</i>		*	*	*	*
<i>Collocalia papuensis</i>					
<i>Mearnsia novaeguineae</i>					
<i>Tanysiptera ellioti</i>					
<i>Tanysiptera corolinae</i>					
<i>Tanysiptera hydrocharis</i>					*
<i>Tanysiptera nymphea</i>					
<i>Melidora Macrorrhina</i>	*	*	*	*	*
<i>Clytoceyx rex</i>	*		*	*	*
<i>Decelo gaudichaud</i>	*	*	*	*	*
<i>Dacelo tyro</i>					*
<i>Halcyon nigrocyanea</i>	*		*	*	*

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Halcyon megarhyncha</i>			*		
<i>Anthus gutturalis</i>			*		
<i>Coracina longicauda</i>			*		
<i>Coracina caeruleogrisea</i>		*	*	*	
<i>Coracina boyeri</i>	*	*	*	*	*
<i>Coracina schisticeps</i>	*	*	*	*	
<i>Coracina melaena</i>	*	*	*	*	*
<i>Coracina montana</i>	*	*	*	*	
<i>Campochaera sloetii</i>			*	*	*
<i>Androphobus viridis</i>			*		
<i>Cinclosoma ajax</i>	*				*
<i>Ptilorrhoa leucosticta</i>	*				
<i>Ptilorrhoa caelurescens</i>	*				
<i>Melampitta lugubris</i>	*		*	*	
<i>Melampitta gigantea</i>	*		*	*	
<i>Ifrita kowaldi</i>			*		
<i>Pomatostomus isidori</i>			*		*
<i>Megalurus albolimbatus</i>					
<i>Sipodotus wallacii</i>	*		*	*	*
<i>Malurus grayi</i>	*				
<i>Malurus alboscapulatus</i>	*		*	*	*
<i>Clytomyias insignis</i>	*		*		
<i>Crateroscelis murina</i>	*	*	*		*
<i>Crateroscelis nigrorufa</i>			*		
<i>Crateroscelis robusta</i>	*	*	*		
<i>Sericornis spilodera</i>	*	*	*	*	*
<i>Sericornis beccarii</i>					
<i>Sericornis virgatus</i>		*		*	
<i>Sericornis nouhuysi</i>	*	*		*	
<i>Sericornis perspicillatus</i>		*	*	*	
<i>Sericornis rufescens</i>	*				
<i>Sericornis papuensis</i>			*	*	
<i>Sericornis arfakianus</i>	*	*	*	*	
<i>Acanthiza murina</i>			*		
<i>Gerygone cinerea</i>	*	*	*	*	
<i>Gerygone chrysogaster</i>	*	*	*	*	*
<i>Rhipidura threnothorax</i>	*	*	*	*	*
<i>Rhipidura maculipectus</i>	*	*	*		*
<i>Rhipidura leucothorax</i>	*	*	*	*	*
<i>Rhipidura rufidorsa</i>	*	*	*	*	*
<i>Rhipidura brachyrhyncha</i>	*	*	*	*	
<i>Rhipidura hyperythra</i>	*	*	*	*	*
<i>Rhipidura albolimbata</i>	*	*	*	*	
<i>Monarcha axillaris</i>	*	*	*	*	

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Monarcha rubiensis</i>	*		*	*	
<i>Monarcha julianae</i>					
<i>Monarcha manadensis</i>	*	*	*	*	*
<i>Monarcha brehmii</i>					
<i>Machaerirhynchus nigripectus</i>	*	*	*	*	
<i>Microeca flavovirescens</i>	*	*	*	*	*
<i>Microeca papuana</i>	*	*	*	*	
<i>Eugerygone rubra</i>	*		*	*	
<i>Petroica bivittata</i>			*		
<i>Petroica archboldi</i>			*		
<i>Poecilodryas albispectularis</i>	*	*			
<i>Poecilodryas brachyura</i>	*	*		*	
<i>Poecilodryas hypoleuca</i>	*	*	*	*	*
<i>Poecilodryas albonotata</i>	*	*	*		
<i>Poecilodryas placens</i>					
<i>Amalocichla sclateriana</i>					
<i>Amalocichla incerta</i>	*			*	
<i>Peneothello sigillatus</i>			*		
<i>Peneothello bimaculatus</i>	*	*	*	*	
<i>Peneothello cryptoleucus</i>	*	*	*	*	
<i>Peneothello cyanus</i>	*		*	*	
<i>Pachycephalopsis hattamensis</i>	*		*		
<i>Pachycephalopsis poliosoma</i>			*		
<i>Pachycare flavogrisea</i>	*	*	*	*	
<i>Rhagologus leucostigma</i>	*	*	*		
<i>Pachycephala schlegelli</i>	*		*	*	
<i>Pachycephala aurea</i>			*		
<i>Pachycephala lorentzi</i>			*		
<i>Pachycephala meyeri</i>	*	*			
<i>Pachycephala hyperythra</i>	*	*	*	*	
<i>Pachycephala monacha</i>			*		
<i>Pachycephala rufinucha</i>	*	*	*	*	
<i>Pachycephala tenebrosa</i>			*	*	
<i>Pitohui kirhocephalus</i>	*		*	*	*
<i>Pitohui dichrous</i>	*	*	*	*	*
<i>Pitohui incertus</i>			*		
<i>Pitohui ferrugineus</i>	*		*	*	*
<i>Pitohui cristatus</i>	*	*	*	*	
<i>Pitohui nigrescens</i>	*		*	*	
<i>Elacestoma nigropectus</i>			*		
<i>Cormobates placens</i>					
<i>Daphoenositta miranda</i>			*		
<i>Melanocharis arfakiana</i>	*				
<i>Melanocharis nigra</i>	*	*	*	*	*

Continued

Species	Reserves				
	Arfak	Tamrau	Lorentz	Mamberamo	Wasur
<i>Melanocharis longicauda</i>	*	*	*	*	
<i>Melanocharis versteri</i>	*	*	*		
<i>Melanocharis striativentris</i>			*		
<i>Rhamphocharis crassirostris</i>	*		*		
<i>Oreocharis arfaki</i>	*	*		*	
<i>Paramythia montium</i>			*		
<i>Zosterops mysorensis</i>					
<i>Zosterops novaeguineae</i>	*	*			
<i>Timeliopsis fulvigula</i>	*	*	*	*	
<i>Timeliopsis griseigula</i>	*	*		*	
<i>Toxorhamphus novaeguineae</i>		*		*	*
<i>Toxorhamphus poliopterus</i>			*		
<i>Lichmera alboauricularis</i>				*	
<i>Myzomela eques</i>	*	*	*	*	*
<i>Myzomela adolphinae</i>	*	*			
<i>Meliphaga mimikae</i>			*		
<i>Meliphaga orientalis</i>	*	*	*	*	
<i>Meliphaga montana</i>	*	*		*	
<i>Meliphaga albonotata</i>		*	*	*	*
<i>Meliphaga analoga</i>	*	*	*	*	*
<i>Meliphaga flavirictus</i>		*	*		
<i>Lichenostomus subfrenatus</i>	*				
<i>Lichenostomus obscurus</i>	*				
<i>Lichenostomus chrysogenys</i>					
<i>Ianthotis polygramma</i>					
<i>Pycnopygius ixoides</i>	*	*	*	*	
<i>Pycnopygius cinereus</i>	*	*	*		
<i>Philemon meyeri</i>				*	*
<i>Philemon brassi</i>				*	
<i>Ptiloprora plumbea</i>			*		
<i>Ptiloprora meekiana</i>			*		
<i>Ptiloprora erythropleura</i>	*		*		
<i>Ptiloprora guisei</i>					
<i>Ptiloprora perstriata</i>			*		
<i>Cicinnurus magnificus</i>	*		*		
<i>Cicinnurus republica</i>					
<i>Paradisaea apoda</i>			*		
<i>Paradisaea minor</i>	*	*		*	
<i>Paradisaea rubra</i>				*	
<i>Corvus fuscicapillus</i>					
Total endemic species	278	146	130	191	74

Source : Petrocz and de Fretes, 1983.

Continued

Mammals Endemic to Sulawesi

Species	Reserves				
	Lore Lindu	Tangkoko	Morowali	Dumoga Bone	Rawa Aopa
<i>Phalanger ursinus</i>	*	*	*	*	*
<i>Crocidura elongata</i>	*	*			
<i>Crocidura lea</i>					
<i>Crocidura levicula</i>					
<i>Crocidura nigripes</i>	*				
<i>Crocidura rhoditis</i>					
<i>Rousettus celebensis</i>		*			
<i>Boneia bidens</i>					
<i>Pteropus arquatus</i>					
<i>Acerodon celebensis</i>					
<i>Neopteryx frosti</i>					
<i>Styloctenium wallacei</i>					
<i>Dobsonia exolata</i>					
<i>Eonycteris rosenburgi</i>					
<i>Rhinolophus celebensis</i>					
<i>Hipposideros inexpectatus</i>					
<i>Myotis weberi</i>					
<i>Pipistrellus minahassae</i>					
<i>Scotophilus celebensis</i>					
<i>Cheiromeles parvidens</i>					
<i>Tadarida sarasinorum</i>	*	*		*	
<i>Tarsius spectrum</i>					
<i>Macaca maura</i>					
<i>Macaca nigra</i>		*			
<i>Macaca nigricens</i>				*	
<i>Macaca ochreata</i>			*		*
<i>Macaca hecki</i>	*		*	*	
<i>Macaca tonkeana</i>					
<i>Prosciurillus abstrusus</i>	*				*
<i>Prosciurillus elbertae</i>					
<i>Prosciurillus leucomus</i>	*	*		*	
<i>Prosciurillus murinus</i>	*	*		*	
<i>Prosciurillus weberi</i>					
<i>Hyosciurus heinrichi</i>	*				
<i>Rubrisciurus rubriventer</i>	*				
<i>Cynopterus minor</i>					
<i>Dobsonia exoleta</i>					
<i>Harpyiomictis celebensis</i>					
<i>Rubrisciurus rubri</i>					
<i>Eropeplus canus</i>	*				
<i>Rattus adpersus</i>	*				
<i>Rattus arcuatus</i>	*				
<i>Rattus callitrichus</i>	*				
<i>Rattus celebensis</i>	*				

Continued

Species	Reserves				
	Lore Lindu	Tangkoko	Morowali	Dumoga Bone	Rawa Aopa
<i>Rattus chrysocomus</i>	*				
<i>Rattus dollmanni</i>	*				
<i>Rattus foramineus</i>	*				
<i>Rattus homatus</i>	*				
<i>Rattus hellwaldi</i>	*				
<i>Rattus hoffmanni</i>	*				
<i>Rattus marmosurus</i>	*				
<i>Rattus muschenbroeki</i>	*				
<i>Rattus penitus</i>					
<i>Rattus punicans</i>					
<i>Rattus salocco</i>					
<i>Rattus taerae</i>					
<i>Rattus xanthurus</i>					
<i>Haeromys minahassae</i>					
<i>Crunomys celebensis</i>	*				
<i>Echiothrix leucura</i>	*				
<i>Melasmothrix naso</i>	*				
<i>Tateomys rhinogradoides</i>	*				
<i>Lenomys meyeri</i>	*	*			
<i>Limnomys beccari</i>					
<i>Limnomys facetus</i>					
<i>Paranomys dominator</i>	*				
<i>Macrogalidia musschenbroeki</i>	*	*		*	
<i>Sus celebensis</i>	*	*	*	*	*
<i>Babyrousa babirussa</i>	*	*	*	*	*
<i>Bubalus depressicornis</i>	*	*		*	
<i>Bubalus quarlesi</i>	*		*	*	

Appendix 10

Institutions Responsible for Strategic Sectors

Programme	Public Participation	Educational and Management		Research and
Government				
- Department * implementation agencies * coordinators	- P & K - DEP-HUT* - DEPTAN* - UNIVERSITAS* - DEPDAGRI* - DEPPEN* - DEPKES* - KLH** - LIPI - PEMDA	- P & K - DEP-HUT* - DEPTAN* - UNIVER- SITAS	- DEP-HUT* - DEPTAN* - DEPDAGRI* - PEMDA*	- P & K - DEP-HUT* - DEPTAN* - UNIVERSITAS* - DEPKES* - LIPI* - BPPT
- WHO				
- Where	Criteria : # Biodiversity # Ecosystem # Economic Value	all over Indonesia all over Indonesia all over Indonesia	all over Indonesia all over Indonesia all over Indonesia	all over Indonesia all over Indonesia
Private Sectors				
	Agricultural Entrepreneur - Jamu (Asosias) - Cosmetics - Foods - Estate Crops - Fishery - Animal husbandary: large small		- Java (Asosias)	
	Forest Entrepreneur - Woods - Scare wildlife - Rattand - Resin - Honey		- woods	

Continued

Programme	Public Participation	Educational and	Management	Research and
-----------	----------------------	-----------------	------------	--------------

- | | | | | |
|--|------------------------------------------------------------------------------|--|---------|------------------|
| | Industry
- Foods
- Paper
- Plywood
- Garment
- Pharmaceutical | | - Foods | - Pharmaceutical |
|--|------------------------------------------------------------------------------|--|---------|------------------|

Services

- Putri
- PMRI
- etc.

D G O

- | | | |
|----------------------------------------|--|-------|
| - IWF | | |
| - WALHI | | WALHI |
| - SKEPHI | | |
| - Masyarakat Pelestari
Hidupan Liar | | |
| - Peragam Hayati | | |
| - Yayasan Bunga Nusantara | | |
| - PAI | | |
| - YIM | | |
| - etc. | | |

Foreign Donor

- | | | |
|------------|----------|----------|
| - AAEF | - AAEF | - AAEF |
| - UNESCO | - UNESCO | - UNESCO |
| - FAO | - FAO | - FAO |
| - WWF | - WWF | |
| - IBPGR | - IBPGR | - IBPGR |
| - Alton J. | | |
| - IFAR | | |

Appendix 11**Some Indonesian NGOs Involved in Activities to Conserve Biodiversity**

NGO	Special Interest	Activities
JAVA		
<i>Jakarta</i>		
WALHI	Environment Biological diversity	Environmental forum coordinating Indonesian input to Global Biodiversity strategy
Biological Science Club	Forest Conservation	Research and monitoring Gunung Halimun
Gugus Analisis	Marine Conservation	Research on the social and economic aspects of the community surrounding the Pulau Seribu N.P.
JKPHI "SKEPHI"	Forest Conservation Community Participation	Community, forestry, activities around Taman Nasional Baluran
PAN-Indonesia	Community seed bank	Collection of information on traditional seed and food crops in East Kalimantan, North and West Sumatra and Java; Organic farming; Food policy study
<i>West Java</i>		
KIH Yayasan Latin	Turtle Conservation Biodiversity Conservation	Nature Awareness Education for youth Community development in Ujung Kulon National Park study of conservation policy
LAWALATA IPB	Conservation of nature	Studies of Rafflesia, Gunung Salak, Seminar on Rhino conservation
CRED Foundation	Organic Farming	

Continued

NGO	Special Interest	Activities
<i>Central Java</i>		
Ecological Study Project (ESP)	Genetic Resource Conservation	
<i>East Java</i>		
PPLH Trawas	Conservation education	Training and study courses for teachers, school children
SUMATRA		
<i>Jambi</i>		
Gita Buana Club	Genetic Resource Conservation	
<i>Mentawai</i>		
Sekretariat Pengembangan Mentawai	Conservation and Community development	
<i>West Sumatra</i>		
Yayasan Teratak	Conservation of genetic	Community seed banks collection of local rice varieties
KALIMANTAN		
Kompas Borneo	Biodiversity Studies	Surveys of Kalimantan Wetlands

Continued

NGO	Special Interest	Activities
SULAWESI		
<i>Central Sulawesi</i>		
Yayasan Palu Hijau	Biodiversity conservation	Activities in Lore Lindu National Park
<i>South Sulawesi</i>		
Yayasan SAMA	Species conservation	Turtle conservation campaign
MALUKU		
Kewang Hasuku	Biodiversity Conservation	
Kewang Ihamahu	Biodiversity Conservation	
MPLH	Education	Conservation education
Yayasan Hualopu	Marine conservation Biodiversity Conservation	Study of marine culture Organising Aru islands community Environment monitoring Dugong conservation
WEST NUSA TENGGARA		
FSDR	Biodiversity Conservation	Community organization
IRIAN JAYA		
YPMD	Conservation and development	Social forestry Community studies

Source : WALHI, 1991.

Repelita V Targets by TFAP Action Areas

TFAP Action Areas	Strategy and Target of Repelita V
I. Forestry in Land-use	<ul style="list-style-type: none"> - Gazettment of 113.0 mill hectares of permanent forest. - Mapping of 60.4 mill hectares of Production forest. - Allocation of 30.5 mill hectares of Conservation forest. - Development of 50 units of nurseries for plantations. - Development of 11 watersheds.
II. Forest-based Industrial development	<ul style="list-style-type: none"> - Maintaining ban on raw material exports. - Securing the production of logs of 157 mill cu.m in five years.
III. Forest for energy	<ul style="list-style-type: none"> - Development of 150,000 hectares of community forest.
IV. Conservation of forest ecosystems	<ul style="list-style-type: none"> - Rehabilitation of 1.9 mill hectares degraded forest. - Rehabilitation of 4.9 mill hectares of critical land. - Enrichment of 4.0 mill hectares of less productive forest. - Development of 12 National Parks and mangrove forest. - Forest fire prevention. - Development of marine conservation. - Resettlement of 500,000 families of shifting cultivators.
V. Institutions	<ul style="list-style-type: none"> - Development of Extension Service. - Development of 5 integrated Forestry Development Centres. - Training on watershed, nature conservation, reforestation, forest management, extension and processing. - Development of integrated forestry in the regions.

Appendix 12

PHPA Activities Supported by External Financing (1979-1990)

Activities Funding Agencies	Protected Areas Management *	Integrated Protected Areas System	Marine Conser- vation.	Buffer Zone Manage- ment and Extention Services	Research and Deve- lopment	Training & education informa- tion	Wetland cons	Breeding programs	Environ- mental Assess- ment (EIA)
World Bank	National Park Dev. 5 sites (Fo- restry I) 1988- 1995,7 1 m			Buffer Zone Manage- ment 5 National Parks (Forestry I)		Programs for 5 national Parks (Forestry I)			
UNDP/ FAO	Nat Park Developme nt studies 1976-1986	Nat. Cons. Plan for Indonesia (1982)	Protected areas Syst. Plan (1985)						
Govt. of USA	Advisor to DG PHPA 1990					Forest Prot Mana- gement Training			
Govt. of Holland						School for Envt. Cons Mana- gement (SECM) 1978	Wetland Cons. & manage- ment (AWB)		
Govt. of Japan						Centre for Nature Cons.Info & Extn. Service		Crocodile Farming (FAO/ UNDP)	
Asian Wetland Bureau (AWB)						Surveys of Coastal Wet- lands			
World Wildlife Fund for Nature- Indonesia	Gn. Leuser Kerinci Wasur Kayan- Mentarang Ujung Kulon		Marine Cons. Dev Study P. Seribu	Kerinci Arfak					

*) Includes conservation areas, nature reserves and protection forest (= conservation forest areas). Prepared by the World Bank in Consultation with PHPA, 6 February 1990.

Appendix 13a

EAP Structure and Repelita V Programme

TEAP Framework	Forestry Programmes Structure in Repelita V
Forest In land-use	<ol style="list-style-type: none"> 1. Forest inventory and assessment of natural resources and environment 3. Safeguarding the forests, soil and water 4. Rehabilitation of forest and critical land 11. Transmigration
Forest-based industrial development	<ol style="list-style-type: none"> 2. Increasing forest production
Forest for energy	<ol style="list-style-type: none"> 2. Increasing forest production
Conservation of forest ecosystem	<ol style="list-style-type: none"> 3. Safeguarding of forest, soil and water 4. Rehabilitation the forest and critical land 5. Nature conservation and the environment 6. Coastal area management
Institutions	<ol style="list-style-type: none"> 7. Research 8. Training and education 9. Personnel efficiency and control 10. Youth mobilisation

Appendix 13b

Repelita V Activities Identified by TFAP Action Areas

Programme of Repelita V	Activities on Repelita V	T.F.A.P. Areas				
		1. Forestry in land-use 2. Forest-based industrial development 3. Forests for energy 4. Conservation of forest ecosystem 5. Institution				
		1	2	3	4	5
I. Forest Inventory and Assessment of Natural Resources and the environment	A. Forest Inventory		*			
	B. Gazettement of Forest Areas					*
II. Increasing Forest	A. Production of Forest Product			*	*	
	B. Production of Processed Wood			*		
	C. Domestic Marketing			*	*	
	D. Foreign Trade			*		
	E. Multiple use of Forest lands				*	
	F. Timber Estate Development	*	*	*		
	G. Rehabilitation of Unproductive Forest lands		*			*
	H. Enrichment Planting		*		*	
	I. Release Cuttings					*
	J. Non-HTI Reforestation				*	*
	K. Community Forest Development		*		*	*
	L. Establishment of seed orchids		*	*	*	*
	M. Permanent central nursery establishment		*			
	N. Technology Deelopment for Forest Product Utilization			*		
III. Safe-guarding the Forest Soil and Water	A. Reforestation and Rehabilitation		*		*	*
	B. Greening Movement		*		*	*
	C. Shifting Cultivation				*	*
	D. Community Forest Development		*		*	
	E. Supporting Activities					
IV. Rehabilitation of Forest and Critical Land	A. Greening and Reforestation	*		*		
	B. Planning and Supervision of Reforestation and Greening of Watershed		*			*
	C. Technology Development and Nurseries		*		*	*
	D. Arboretum Development		*			*
V. Nature Conservation and the Environment	A. Location of National Conservation Area		*			*
	B. Flora and Fauna					*
	C. City Forest Development					*
	D. Arboretum Development					*
	E. Forestry Environment orientated Development					*
	F. Development of Information Centre for Nat. Conservation					*
	G. Conservation Cadre					*
	H. Supervision of Zoo & Safari Parks					*
	I. PLG Development					*

BIODIVERSITY ACTION PLAN FOR INDONESIA

Programme of Repelita V	Activities on Repelita V	T.F.A.P. Areas				
		1	2	3	4	5
	J. National Parks Development				*	
	K. Tourism Parks Development				*	
	L. Game Parks Development					*
	M. Forest Parks Development				*	
	N. Protection Forests				*	
	O. Visitors fee R.P. Nat. for G. Park				*	
	P. Protection and Forest Guarding				*	
	Q. Conservation Extension				*	
VI. Coastal Area Management	A. Marine Park Development				*	
	B. Mangrove Rehabilitation	*		*		
	C. Marine Cons. Extension				*	
	D. marine Conservation Extension				*	
VII. Research	A. Execution of Research					
	B. Science and Technology					
	C. Science and Technology Development					
VIII. Training and Education	A. Education and Training in Forestry				*	
IX. Personnel efficiency and control	A. Organization/Institution				*	
	B. Systems				*	
	C. Control				*	
X Youth Mobilisation	A. Love for Nature				*	
XI. Transmigration	A. Planning of Conservation areas for transmigration	*				
	B. Conversion for non-transmigration	*				

Appendix 14

Project Proposals

Activities	Duration	Executing Agency	Origin	Budget
Biodiversity Inventory				
* Systematic Resources	3 years	Herbarium, Museum Universities, PSLs	Harvard	1,850,000
* Biodiversity Database		LIPI	TNC	
Regional Conservation Programs				
* Regional conservation Strategies	3 years	KLH, Universities, NGOs		3,710,000
* Conservation Program, Nusa Tenggara	3 years	PHPA, WWF, NGOs, Universities	WWF	2,425,350
* Conservation Program, Maluku	5 years	PHPA, MoF, KLH, Perikanan, NGOs		5,135,000 (incl. boat)
Protected Area + Wildlife				
* Cendrawasih-Reserves in Irian Jaya	5 years	PHPA, WWF, NGOs		3,452,000
* Sumatran Rhino Reserve	3 years	PHPA, WWF, IUCIN/AAZPA	WWF	675,000
* Orangutan Reserve	3 years	PHPA, NGOs, Customs PSLs, Teachers		1,105,000
Integrated Conservation+ Development				
* Manusela National Park	5 years	PHPA, NGOs, International Organizations	WWF	1,170,000
* Gunung Loentz, Irian Jaya	5 years	PHPA, UNCEN, NGOs, WWF	WWF	2,481,000
* Kerinci Seblat, Sumatra	5 years	PHPA, NGOs, Universities	WWF	1,506,000
* Rawa-Aopa, Sulawesi	5 years	PHPA, AWB, NGOs, WWF	WWF	2,474,800
* Gunung Halimun, Java	3 years	PHPA, NGOs, UNAS		1,234,600

Continued

Activities	Duration	Executing Agency	Origin	Budget
Coastal + Marine Conservation				
* Dugong Populations, Irian Jaya	2 years	PHPA, LIPI, WWF, NGOs		541,000
* Resources Management Bintuni Bay	1.5 years	PHPA, PSLs, NGOs, AWB,	AWB	983,000
* Turtle Nesting Beaches	2 years	PHPA, local authorities	WWF	1,054,800
* Togian Island Multiple Use	5 years	PHPA, BAPPEDA, WWF,	WWF	1,311,000
* Aru Islands-Conservation+ Management	5 years	PHPA, PSL-UNPATTI, DGIS		2,000,000
Wetlands Conservation & Management				
* Bintuni Bay	1.5 years	PHPA, PSLs, NGOs, AWB	AWB	983,000
* Sungai Sembilang, Sumatera	1 years	PHPA, AWB, PPLH UNSRI	AWB	189,150
* Biodiversity in Lakes, Sulawesi	1.5 years	PHPA, AWB, BAPPEDA	AWB	384,200
* Wetland Surveys Integrated, Sustainable Mangrove Management	4 years	AWB, PHPA Forestry, PHPA Fisheries	AWB TFAP	2,750,000
Forest Conservation + Management				
* Mangement of Protection Forest	5 years	MOF, PHPA, Litbang Kehutanan		1,229,000
* Enrichment Planting, Bengkulu	5 years	Univ. Bengkulu, LIPI, Dinas Kehutanan, IPB, Bappeda	LIPI	750,000
Rehabilitation of Degraded Lands-Participatory wresstry	5 years	MOF, Transmigration	TFAP	5,360,000
Development of Biosphere Reserves	3 years	MOF, local + provincial	TFAP	1,230,000

Continued

Activities	Duration	Executing Agency	Origin	Budget
Agriculture				
Integrated Development of Shifting Cultivation	5 years	MOF	TFAP	9,500,000
Agroforestry in NTT	5 years	D-G Reforestation	TFAP	3,100,000
Ex-Situ				
Enrichment holdings of crop species Gempalm collection	3 years	Litbang Pertanian LIPI, Universities	LIPI	700,000
Research				
Ecological and Biodiversity Research	5 years	LIPI, MOF, Forestry + agricultural faculties	TFAP	10,360,000
Sustainable Forest Development in Concessions	5 years	MOF, Universities	TFAP	30,400,000
Non-Timber Forest Products	5 years	Forestry Research, MOF	TFAP	6,000,000
* Long-term Research Sites	3 years	PHPA, LIPI, Universities	LIPI	200,000
Wildlife Trade/ Resources Utilisation				
* Crocodile Farming	3 years	PHPA, FAO	PHPA	1,240,000
* Monitoring the Wildlife Trade	5 years	PHPA, PSLs, LIPI, NGOs	WWF	1,112,000
* Conservation Biodiversity in production/Extraction forest	5 years	Puslitbang Biologi,	MOF	885,000

Continued

BIODIVERSITY ACTION PLAN FOR INDONESIA

Activities	Duration	Executing Agency	Origin	Budget
Education and Training				
* National Biodiversity Campaign	5 years	KLH, AED, WWF, AED	WWF	200,000
* Field Guides + Flora	2 years	PHPA, NGOs, LIPI	WWF	1,060,000
* Terpadu + Buffer Zone Planning	1 years	BAPPEDA, Universities, Consultants, NGOs		1,200,000
* School for Marine Conservation Management	5 years	PHPA, LIPI, Fisheries DGIS		6,543,500
Ecotourism				
* Togian Islands	5 years	PHPA, BAPPEDA, NGOs	WWF	1,311,000
* Turtle Beaches	2 years	PHPA, Local authorities	WWF	1,054,800
* Orangutan Reserve	3 years	PHPA, NGOs		1,105,000
* Park Guidebooks	2 years	PHPA, NGOs, WWF	WWF	272,000