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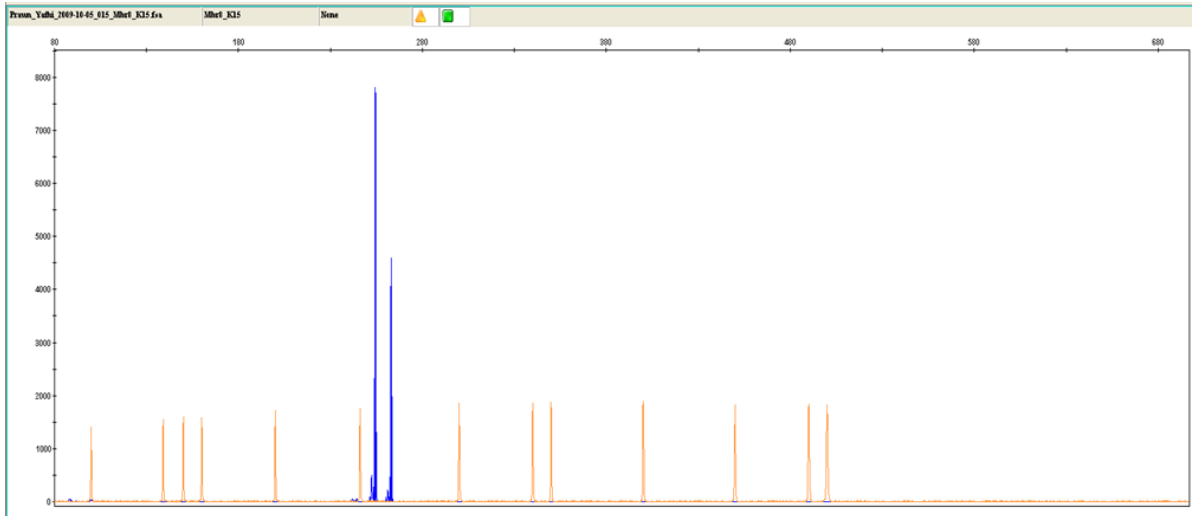
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[http://www.itis.gov/servlet/SingleRpt/SingleRpt?search\\_topic=all&search\\_value=Macrobrachium+rosenbergii&search\\_kingdom=every&search\\_span=exactly\\_for&categories=All&source=html&search\\_credRating=All](http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=all&search_value=Macrobrachium+rosenbergii&search_kingdom=every&search_span=exactly_for&categories=All&source=html&search_credRating=All)

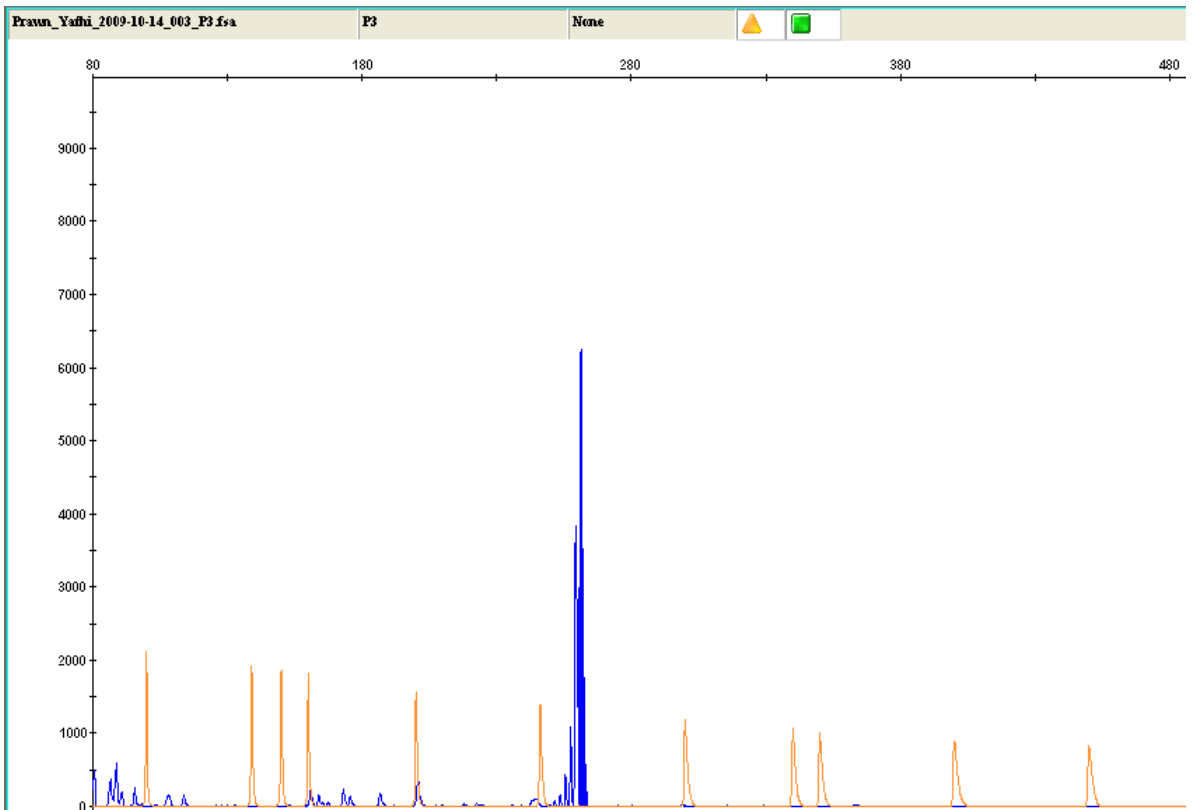


## APPENDIX A

### Fragment analysis graphs.

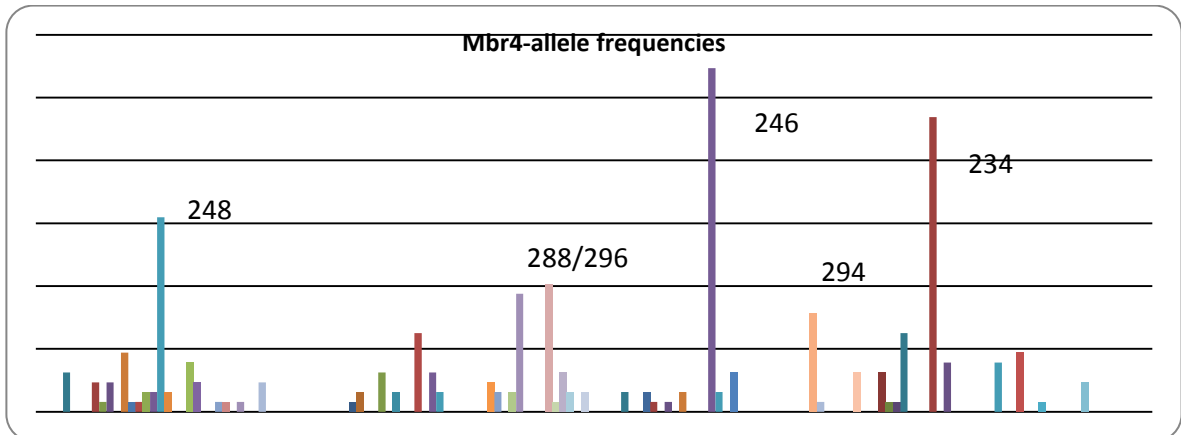
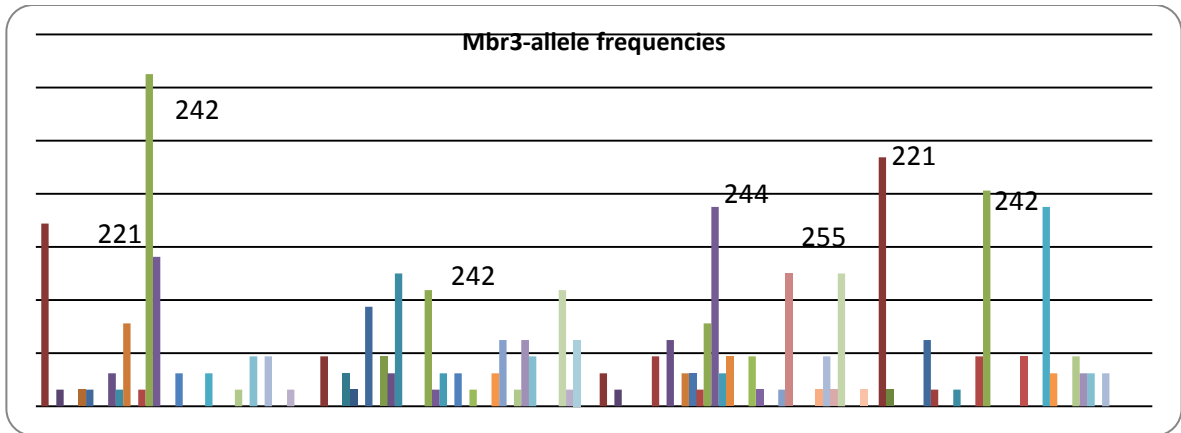
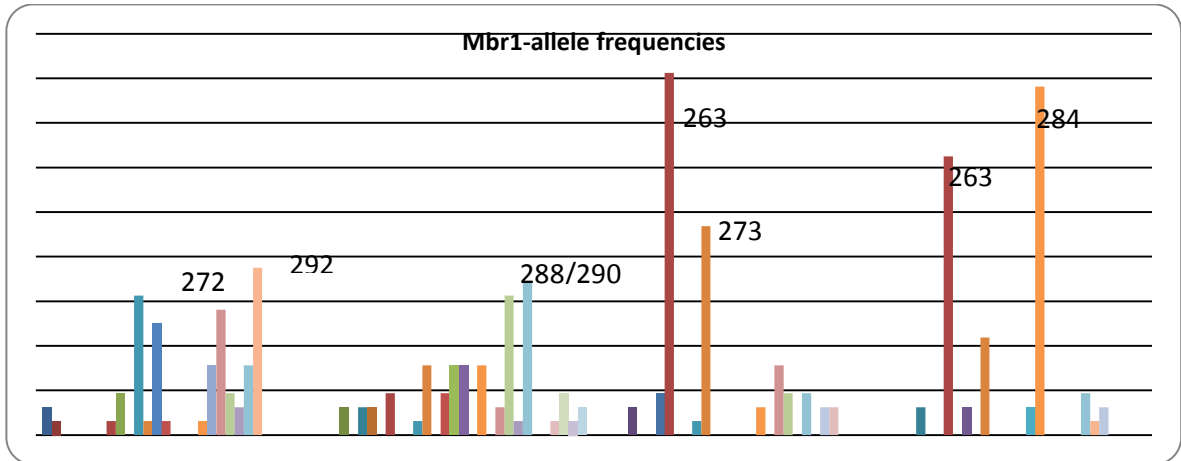


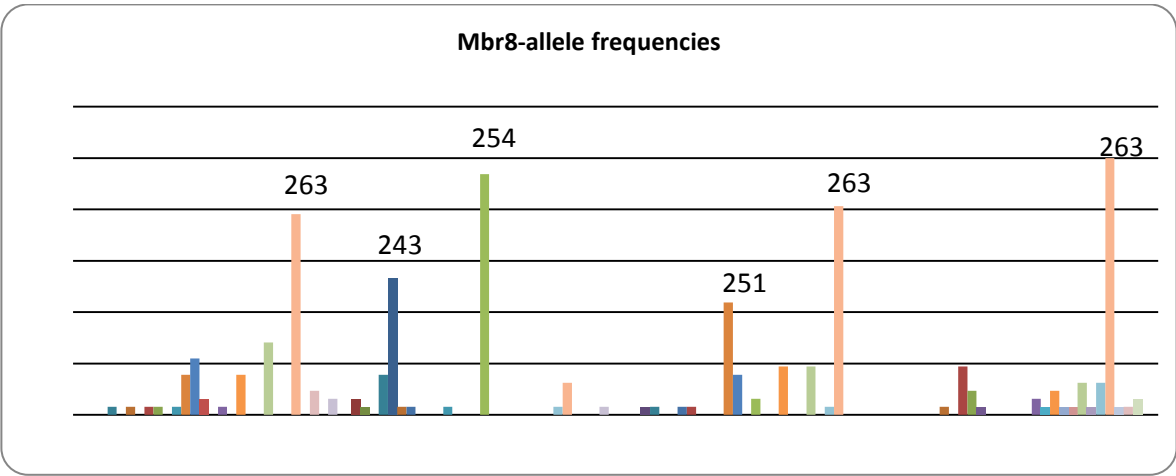
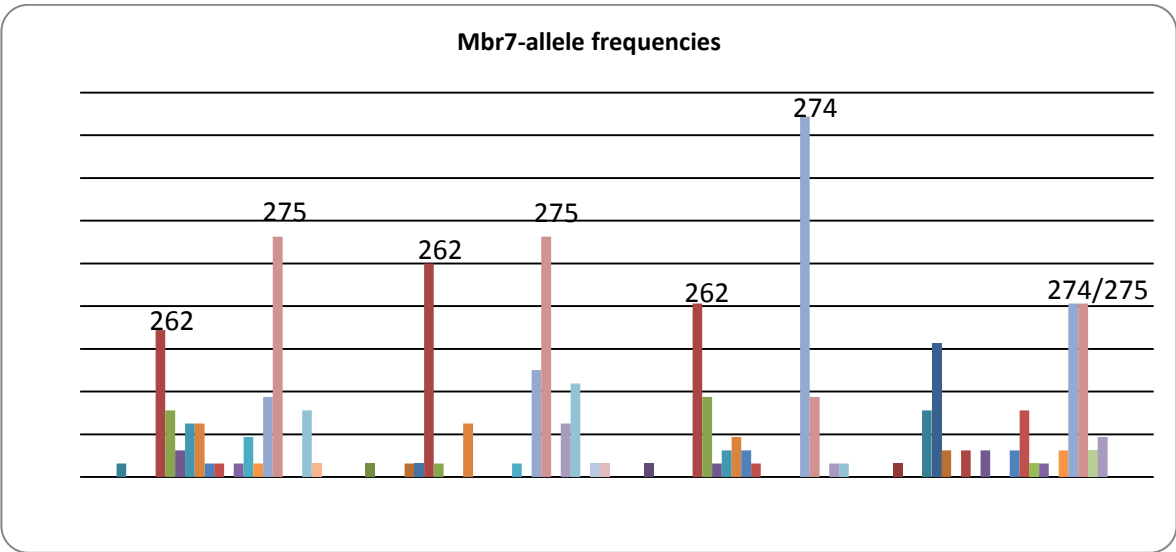
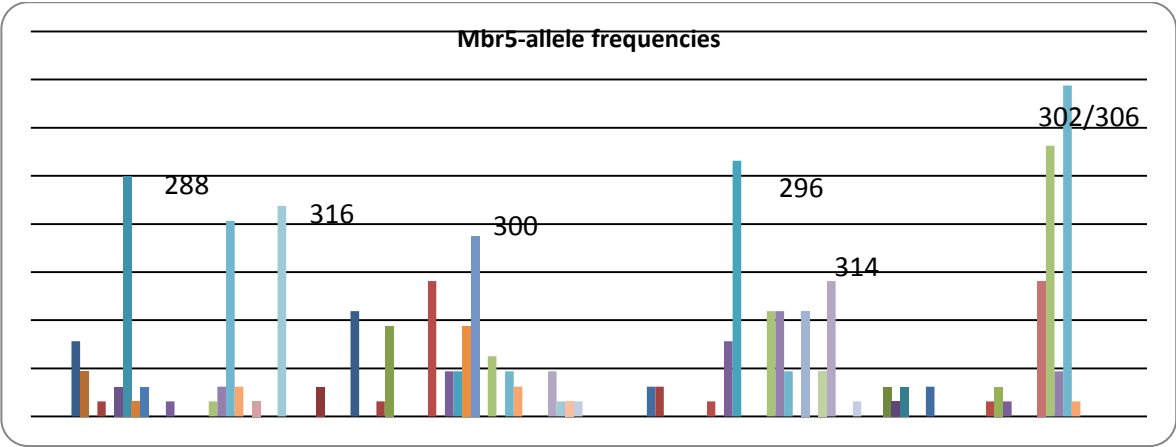
Primer Mbr8- Fragment analysis result for sample K15 (Kampung Aceh-15).

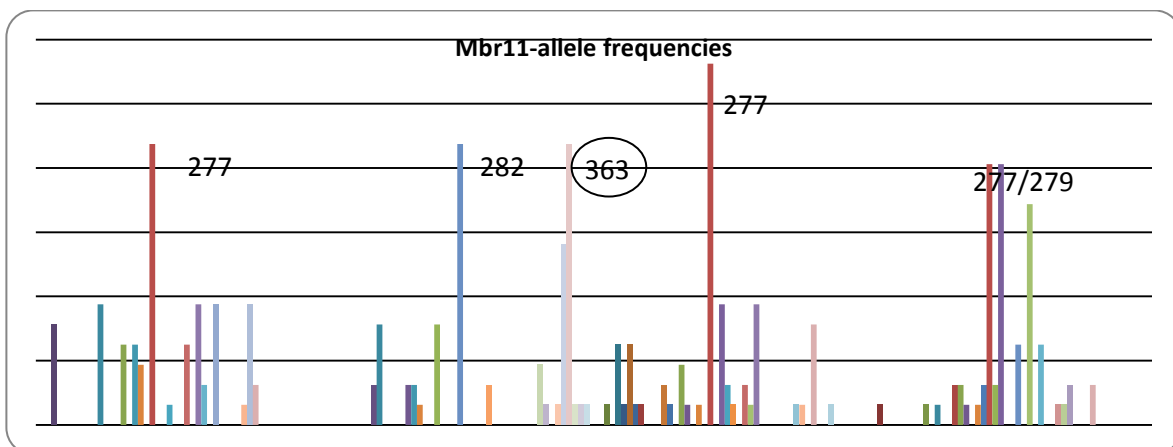
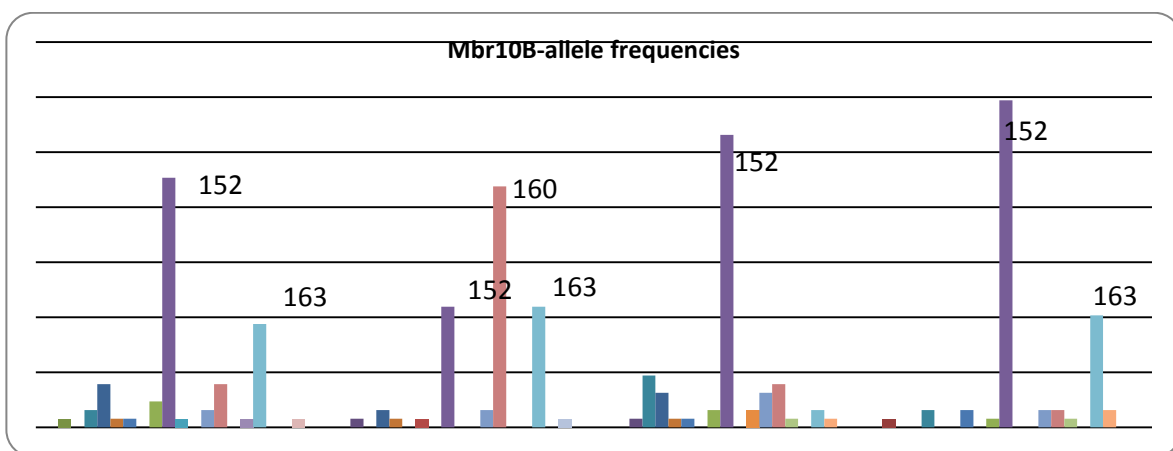
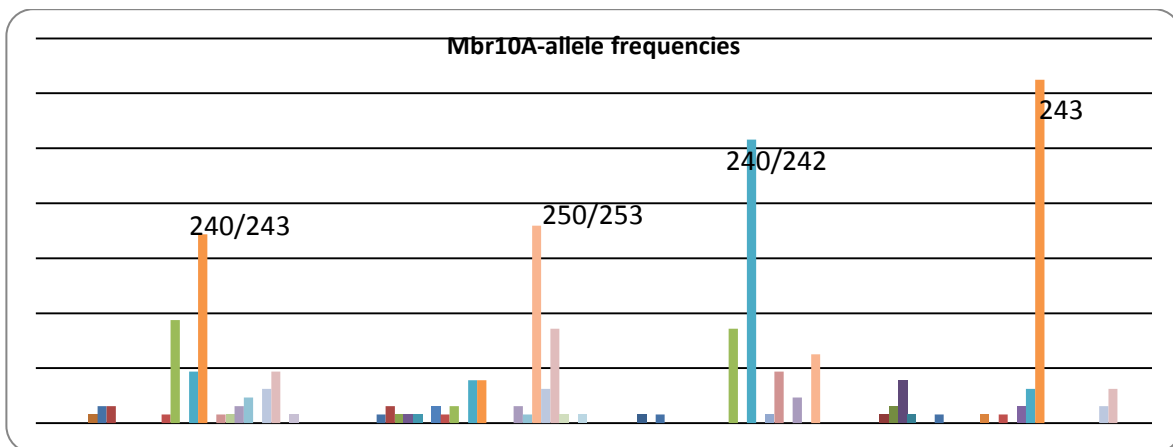


Primer Mbr11- Fragment analysis result for sample P3 (Teluk Kumbar-3).

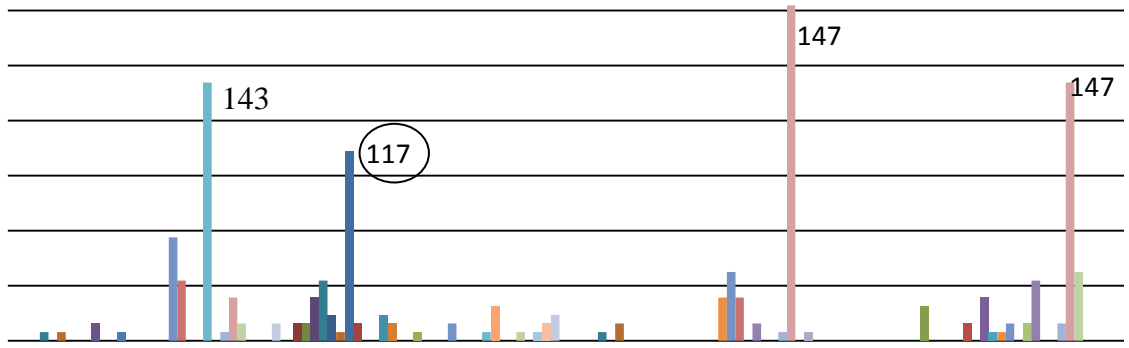
## APPENDIX B







Mr78-allele frequencies



## APPENDIX C

Locus	Genotype			
Population	Teluk Kumbar	Kampung Acheh	Pantai	Perak (wild)
<b>Mbr1</b>	252/252 (1), 268/268 (1), 272/272 (2), 273/272 (1), 274/274 (3), 275/253 (1), 285/285 (2), 286/272 (1), 286/286 (4), 288/268 (1), 288/288 (1), 289/289 (1), 290/263 (1), 290/272 (1), 290/274 (1), 290/290 (1), 292/272 (3), 292/272 (1), 292/284 (1), 292/285 (1), 292/292 (3)	254/254 (1), 259/259 (1), 273/272 (1), 273/273 (1), 275/275 (1), 278/263 (1), 278/278 (2), 280/258 (1), 280/280 (1), 284/258 (1), 284/263 (1), 284/284 (1), 286/286 (1), 288/288 (4), 289/288 (1), 290/280 (1), 290/290 (5), 296/273 (1), 298/263 (1), 298/273 (1), 298/275 (1), 300/284 (1), 302/280 (1), 302/288 (1)	260/260 (1), 263/263 (10), 273/257 (2), 273/260 (1), 273/273 (6), 284/284 (1), 286/286 (1), 288/272 (1), 288/288 (1), 290/263 (3), 294/263 (1), 294/286 (1), 296/296 (1)	258/258 (1), 263/263 (9), 273/273 (3), 282/282 (1), 284/269 (1), 284/284 (12), 290/263 (1), 290/290 (1), 292/269 (1), 294/263 (1), 294/273 (1)
<b>Mbr3</b>	221/221 (1), 224/221 (1), 238/238 (2), 240/221 (1), 242/221 (3), 242/242 (7), 244/221 (3), 244/244 (3), 248/229 (1), 252/252 (1), 257/236 (1), 263/234 (2), 263/242 (1), 263/242 (2), 265/248 (1), 271/230 (1)	221/221 (1), 230/230 (2), 232/228 (1), 232/232 (1), 234/234 (1), 236/225 (2), 236/236 (3), 242/242 (3), 246/246 (1), 248/248 (1), 250/221 (1), 253/253 (1), 254/254 (2), 257/230 (1), 260/260 (2), 263/242 (1), 263/263 (1), 267/230 (1), 267/267 (3), 271/244 (1), 275/275 (2)	221/221 (1), 234/234 (1), 238/238 (1), 240/224 (1), 242/231 (1), 242/242 (2), 244/231 (1), 244/244 (5), 247/239 (2), 250/234 (1), 250/250 (1), 254/234 (1), 255/255 (4), 264/251 (1), 265/244 (1), 265/265 (1), 266/247 (1), 267/246 (2), 267/267 (3), 277/231 (1)	221/221 (3), 230/230 (1), 231/221 (1), 240/223 (1), 240/240 (1), 242/221 (3), 242/236 (1), 242/242 (4), 249/221 (1), 249/249 (1), 252/221 (2), 252/230 (1), 252/242 (1), 252/252 (4), 257/221 (1), 253/253 (1), 257/257 (1), 260/260 (1), 263/221 (1), 263/230 (1), 265/265 (1)
<b>Mbr4</b>	230/230 (1), 238/238 (1), 240/240 (2), 242/230 (1), 244/244 (1), 246/246 (1), 248/230 (1), 248/234 (1),	231/231 (1), 236/236 (1), 239/239 (1), 242/242 (3), 246/246 (1), 248/248 (1), 264/264 (1), 270/270 (1),	233/233 (1), 246/230 (2), 246/238 (1), 246/240 (2), 246/246 (11), 252/234 (1), 252/252 (1), 294/246 (7),	214/214 (2), 230/230 (4), 234/216 (1), 234/234 (13), 238/221 (1), 238/238 (2), 248/248 (1), 254/234 (2),

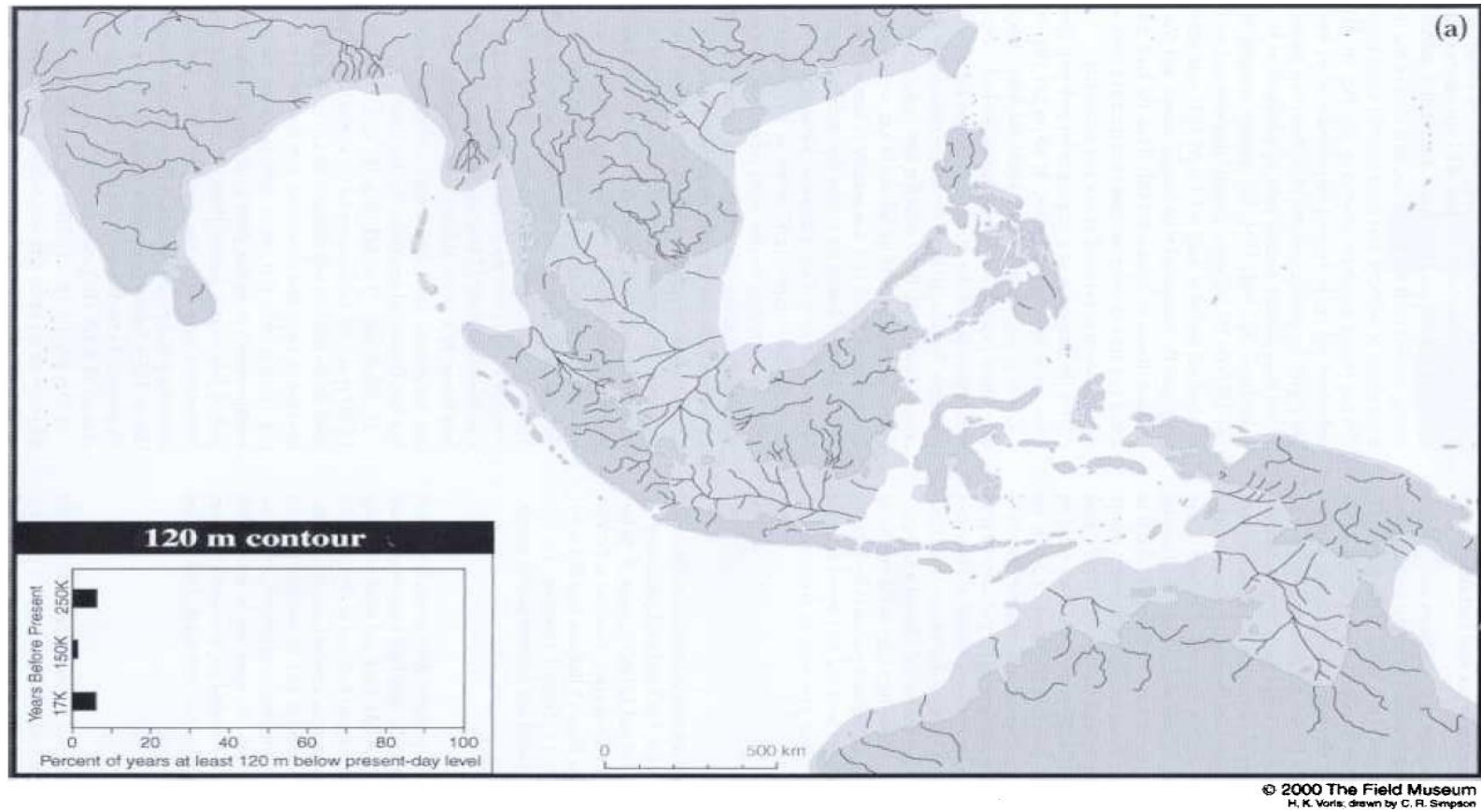
	248/236 (1), 248/240 (2), 248/241 (1), 248/248 (9), 250/234 (1), 250/238 (1), 255/234 (1), 255/255 (2), 256/256 (1), 273/248 (1), 288/270 (1), 295/256 (1), 295/295 (1)	288/236 (1), 288/246 (1), 288/288 (3), 296/242 (1), 296/246 (1), 296/264 (1), 296/274 (1), 296/288 (3), 296/296 (3), 298/276 (1), 300/236 (1), 300/242 (1), 300/300 (1), 301/231 (1), 301/288 (1), 320/320 (1)	294/248 (2), 294/252 (1), 295/246 (1), 310/310 (2)	254/254 (2), 257/234 (1), 289/238 (3)
<b>Mbr5</b>	280/280 (2), 281/281 (1), 287/287 (1), 288/288 (7), 290/290 (1), 302/281 (1), 304/304 (1), 306/284 (1), 306/306 (6), 308/308 (1), 311/289 (1), 316/280 (1), 316/288 (2), 316/294 (1), 316/316 (5)	272/272 (1), 280/280 (3), 286/286 (3), 292/292 (4), 294/294 (1), 296/296 (1), 298/298 (3), 300/300 (6), 302/302 (2), 306/284 (1), 306/306 (1), 308/308 (1), 312/292 (1), 312/312 (1), 316/280 (1), 322/296 (1), 330/294 (1)	294/294 (2), 296/296 (7), 302/284 (1), 302/302 (3), 304/304 (3), 306/284 (1), 306/306 (1), 310/294 (1), 310/310 (3), 312/292 (1), 312/312 (1), 314/282 (2), 314/296 (3), 314/314 (2), 330/304 (1)	275/275 (1), 279/279 (1), 301/282 (2), 301/293 (1), 301/301 (3), 302/293 (1), 302/294 (1), 302/302 (8), 304/292 (1), 304/304 (1), 306/306 (11), 308/276 (1)
<b>Mbr7</b>	263/263 (1), 271/263 (1), 272/266 (1), 272/272 (1), 273/262 (1), 274/262 (3), 274/263 (1), 274/265 (1), 274/268 (1), 275/256 (1), 275/262 (6), 275/263 (1), 275/264 (1), 275/265 (3), 275/266 (1), 275/269 (1), 275/275 (2), 278/262 (1), 278/266 (2), 278/278 (1), 280/264 (1)	262/262 (1), 274/252 (1), 274/262 (5), 274/263 (1), 275/259 (1), 275/261 (1), 275/262 (9), 275/266 (2), 275/275 (2), 277/277 (2), 278/266 (2), 278/272 (1), 278/278 (2), 281/275 (1), 299/274 (1)	274/262 (12), 274/263 (5), 274/264 (1), 274/265 (1), 274/266 (2), 274/268 (2), 274/274 (2), 275/255 (1), 275/262 (1), 275/263 (1), 275/269 (1), 275/275 (1), 277/265 (1), 278/266 (1)	269/259 (1), 269/269 (1), 270/259 (1), 271/264 (1), 273/257 (2), 274/251 (1), 274/256 (2), 274/257 (1), 274/262 (1), 274/268 (2), 274/274 (3), 275/256 (2), 275/257 (7), 275/269 (2), 275/275 (1), 276/256 (1), 276/262 (1), 277/264 (1), 277/277 (1)
<b>Mbr8</b>	260/242 (1), 260/244 (1), 260/260 (2), 263/246 (1), 263/247 (1), 263/249 (1), 263/251 (5), 263/252 (7), 263/253 (2), 263/255 (1),	239/230 (1), 254/230 (1), 254/242 (5), 254/243 (17), 254/244 (1), 254/245 (1), 254/254 (1), 263/249 (1), 263/254 (3), 277/262 (1)	257/245 (1), 260/252 (2), 260/260 (2), 262/241 (1), 263/242 (1), 263/26 (1), 263/251 (14), 263/252 (3), 263/254 (2), 263/257 (5)	255/255 (1), 258/247 (1), 260/246 (1), 260/260 (1), 261/248 (1), 262/244 (1), 262/246 (1), 262/262 (1), 263/246 (4), 263/247 (2),

	263/257 (5), 263/263 (1), 266/260 (3), 277/277 (1),			263/257 (2), 263/263 (12), 264/259 (1), 266/256 (1), 270/257 (1), 270/260 (1)
<b>Mbr10A</b>	240/227 (2), 240/240 (2), 242/230 (1), 242/239 (1), 242/242 (1), 243/226 (1), 243/230 (1), 243/240 (3), 243/243 (4), 245/243 (1), 246/243 (1), 247/247 (1), 248/243 (3), 251/240 (1), 251/242 (1), 251/243 (2), 253/240 (1), 253/242 (1), 253/243 (2), 253/253 (1), 267/240 (1)	240/230 (1), 243/243 (1), 247/243 (1), 250/227 (1), 250/230 (1), 250/231 (1), 250.237 (2), 250/239 (1), 250/240 (1), 250/242 (4), 250/243 (1), 250/247 (1), 250/250 (3), 251/232 (1), 251/251 (1), 253/233 (1), 253/242 (1), 253/243 (1), 253/248 (1), 253/250 (3), 253/253 (2), 259/250 (1), 276/251 (1)	240/227 (1), 240/240 (1), 242/223 (1), 242/240 (8), 242/242 (10), 245/245 (1), 247/242 (3), 250/242 (1), 250/244 (1), 250/245 (4), 250/250 (1)	217/217 (1), 218/218 (1), 221/202 (1), 239/227 (1), 241/241 (1), 242/242 (1), 243/218 (3), 243/236 (1), 243/243 (16), 251/243 (2), 253/242 (2), 253/243 (2)
<b>Mbr10B</b>	151/141 (1), 151/142 (1), 152/135 (1), 152/140 (2), 152/141 (4), 152/145 (1), 152/152 (3), 157/157 (1), 160/151 (1), 160/152 (2), 160/160 (1), 162/152 (1), 163/152 (11), 163/153 (1), 178/152 (1)	152/141 (1), 157/152 (1), 160/138 (1), 160.141 (1), 160/142 (1), 160/149 (1), 160/152 (8), 160/160 (6), 163/152 (4), 163/157 (1), 163/160 (3), 163/163 (3), 169/160 (1)	152/138 (1), 152/140 (6), 152/141 (3), 152/142 (1), 152/152 (7), 155/155 (1), 157/141 (1), 157/145 (1), 157/152 (2), 160/151 (1), 160/152 (4), 161/152 (1), 163/152 (2), 164/151 (1)	151/133 (1), 152/140 (2), 152/145 (2), 152/152 (7), 157/152 (2), 160/152 (2), 161/152 (1), 163/152 (13), 164/152 (2)
<b>Mbr11</b>	243/243 (2), 261/261 (2), 269/269 (2), 273/273 (2), 275/261 (1), 275/275 (1), 277/261 (1), 277/277 (4), 283/277 (2), 283/283 (1), 287/243 (1), 287/277 (3), 289/289 (1), 295/295 (3), 302/280 (1), 303/303 (3), 305/287 (2)	259/259 (1), 261/261 (2), 270/270 (1), 275/261 (1), 278/278 (2), 282/282 (5), 290/290 (1), 306/282 (3), <b>356/356 (1), 363/273 (1),</b> <b>363/278 (1), 363/329 (1),</b> <b>363/356 (7), 363/363 (2),</b> 364/317 (1), 370/273 (1), 382/282 (1)	244/244 (2), 246/240 (1), 248/248 (1), 263/263 (1), 269/251 (1), 277/248 (1), 277/277 (8), 279/248 (1), 279/279 (2), 280/250 (1), 280/265 (1), 281/277 (1), 283/283 (1), 285/275 (1), 287/269 (1), 287/287 (2), 302/269 (1), 305/270 (1), 305/279 (1), 305/287 (1),	266/266 (1), 274/235 (1), 276/276 (1), 277/253 (1), 277/277 (6), 278/278 (1), 279/269 (2), 279/279 (5), 282/282 (2), 285/285 (5), 289/289 (2), 296/279 (1), 297/270 (1), 298/298 (1), 305/261 (1), 305/285 (1)



			305/305 (1), 320/300 (1)	
<b>Mr78</b>	134/127 (1), 134/134 (3), 138/121 (1), 138/138 (3), 143/113 (1), 143/121 (1), 143/134 (5), 143/143 (10), 145/143 (1), 147/115 (1), 147/147 (2), 149/149 (1), 155/143 (2)	103/103 (1), 104/104 (1), 109/104 (2), 113/113 (3), 114/114 (1), <b>117/117 (10)</b> , 119/119 (1), 122/113 (1), 122/122 (1), 126/126 (1), 134/115 (1), 134/117 (1), 144/144 (2), 149/109 (1), 153/114 (1), 154/117 (1), 154/129 (1), 155/143 (1), 155/155 (1)	132/132 (2), 134/134 (4), 140/140 (1), 145/138 (1), 147/113 (1), 147/115 (2), 147/138 (4), 147/147 (16), 150/132 (1)	130/130 (1), 134/134 (1), 139/139 (1), 140/132 (1), 140/128 (2), 140/132 (1), 140/140 (2), 145/145 (1), 147/120 (2), 147/130 (3), 147/131 (1), 147/147 (12), 149/120 (2), 149/149 (3)

## APPENDIX D



Map of tropical South East Asia and Austral-Asia illustrating depth contours below present level. The origin of the base map is a Geographic projection in the Arc View (Environmental Systems Research Institute, Inc.). (Voris, 2000)

