

# Fisheries performance in Rumaki and Non-Rumaki Areas

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1 Fisheries in Rumaki and Non-Rumaki Areas

1.1 Spatial catch variation in Non Rumaki

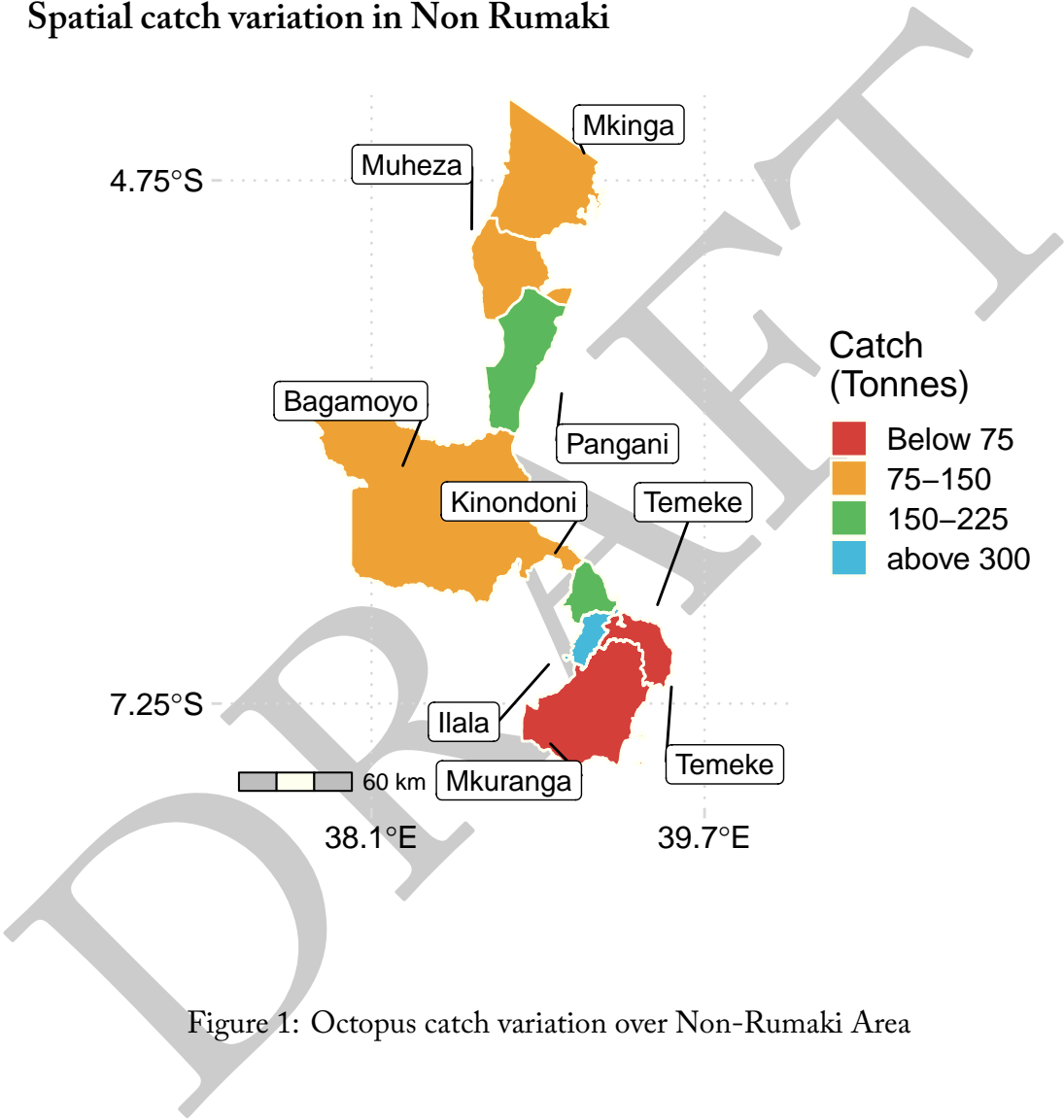


Figure 1: Octopus catch variation over Non-Rumaki Area

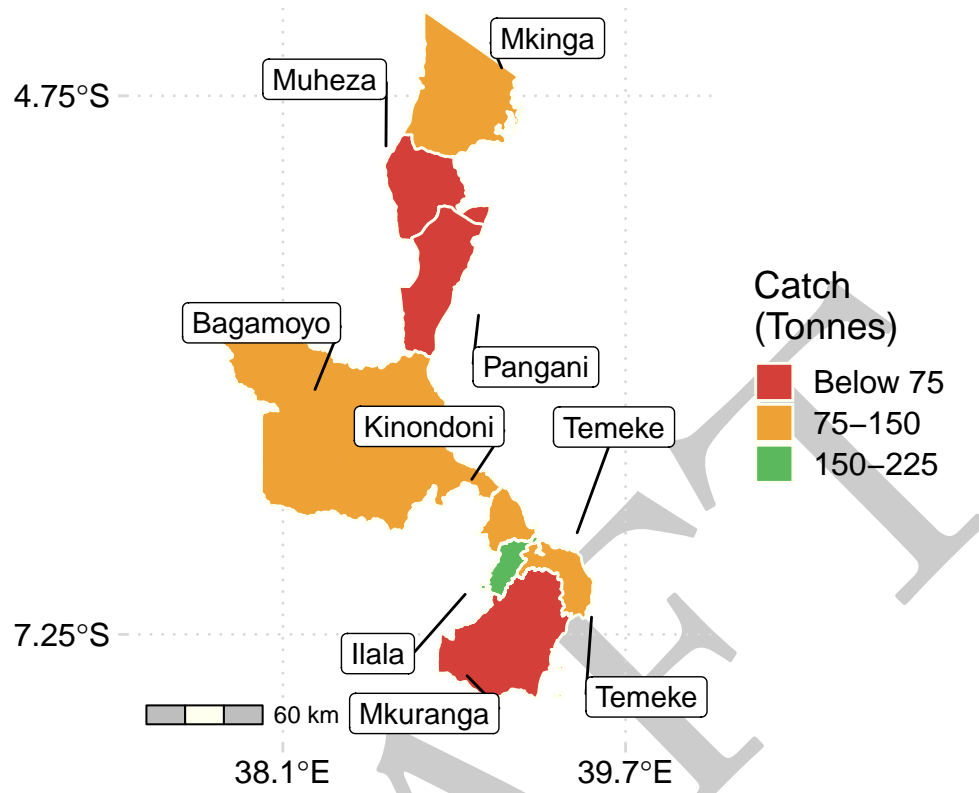


Figure 2: Tuna fish catch variation over Non-Rumaki Area

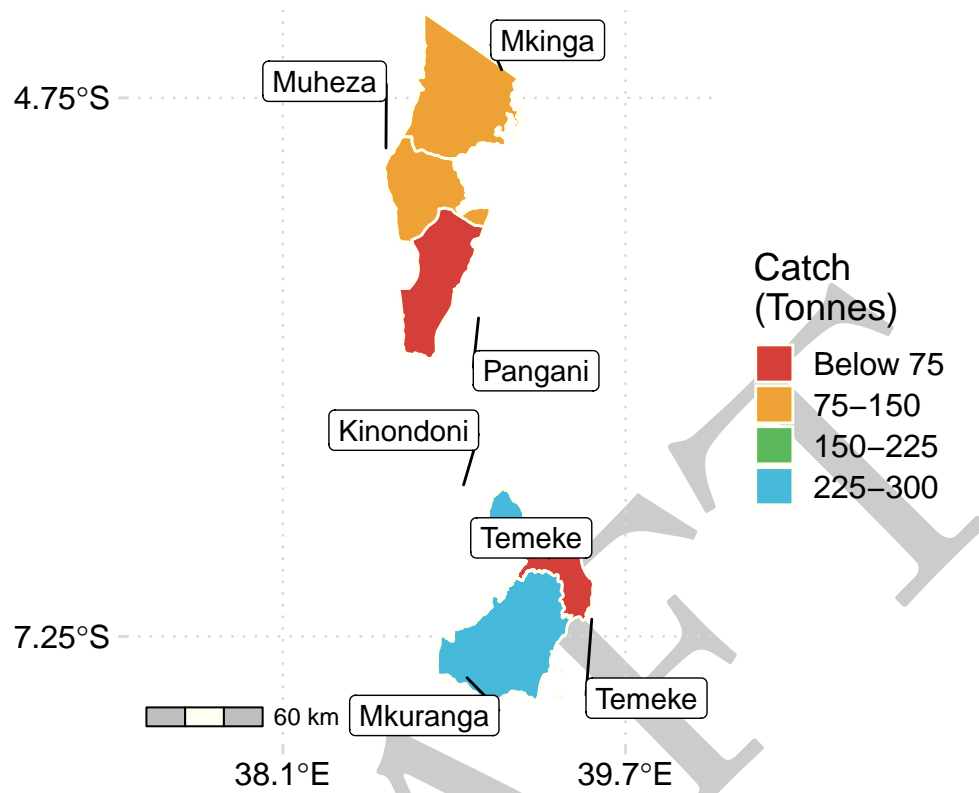


Figure 3: Small pelagic catch variation over Non-Rumaki Area

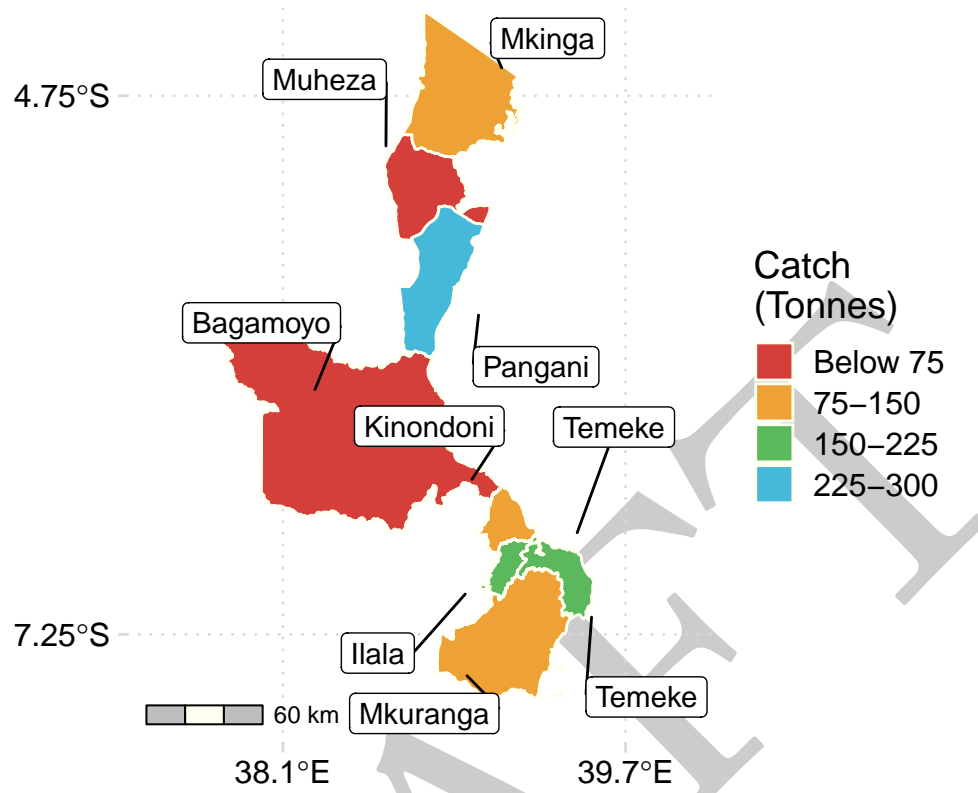


Figure 4: Reef fish catch variation over Non-Rumaki Area

## 1.2 Spatial catch variation in Rumaki

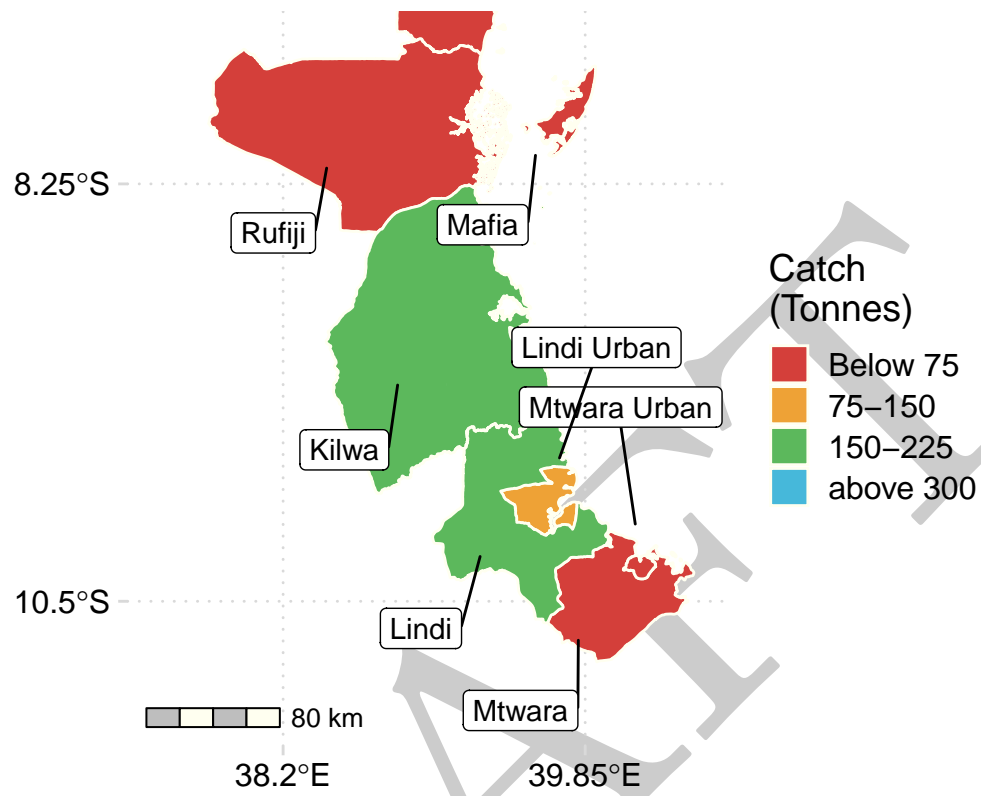


Figure 5: Octopus catch variation accross Rumaki Area

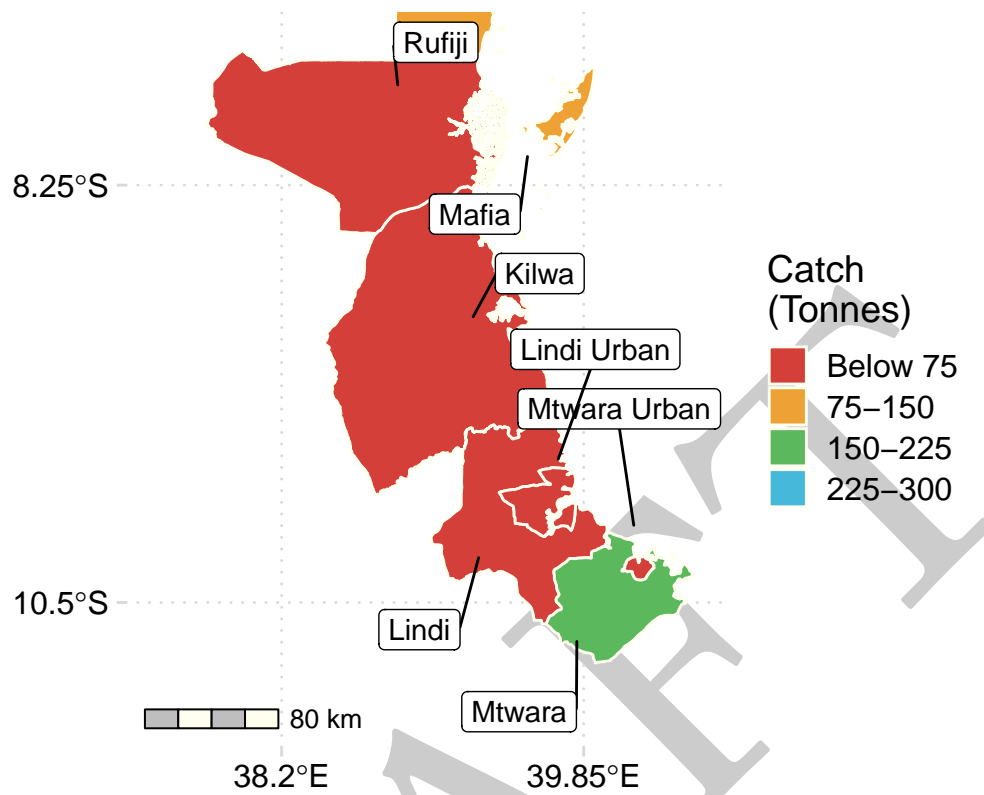


Figure 6: Reef fish catch variation accross Rumaki Area

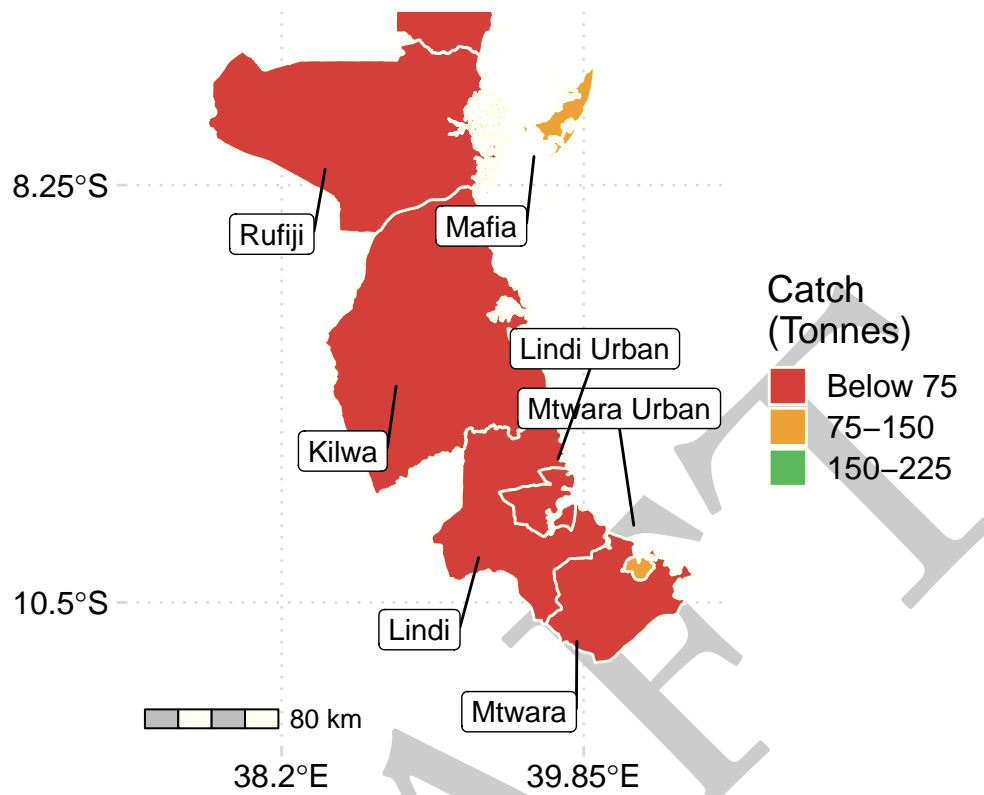


Figure 7: Tuna catch variation accross Rumaki Area



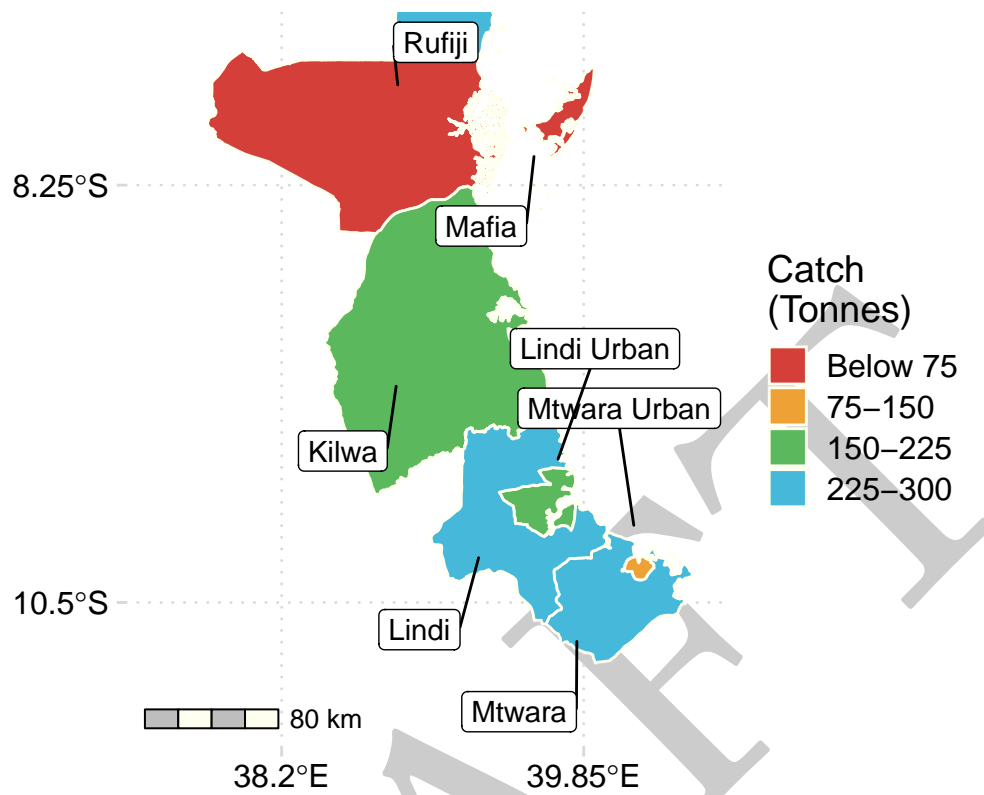


Figure 8: Small pelagic catch variation accross Rumaki Area

### 1.3 Regression and correlation of annual fish catches over study period

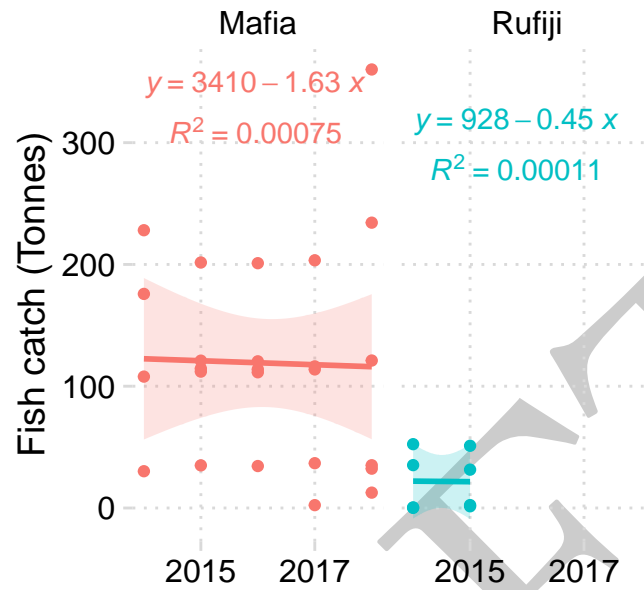


Figure 9: District in Rumaki areas with relatively stable annual catches

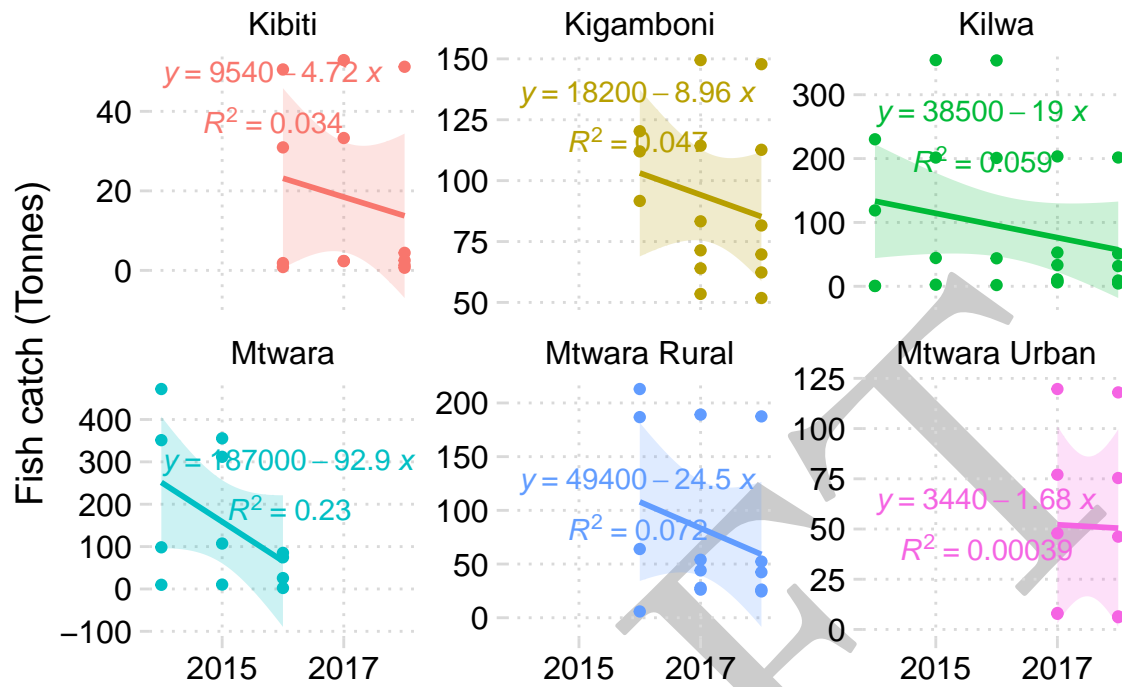


Figure 10: District in Rumaki areas with relatively decline annual catches

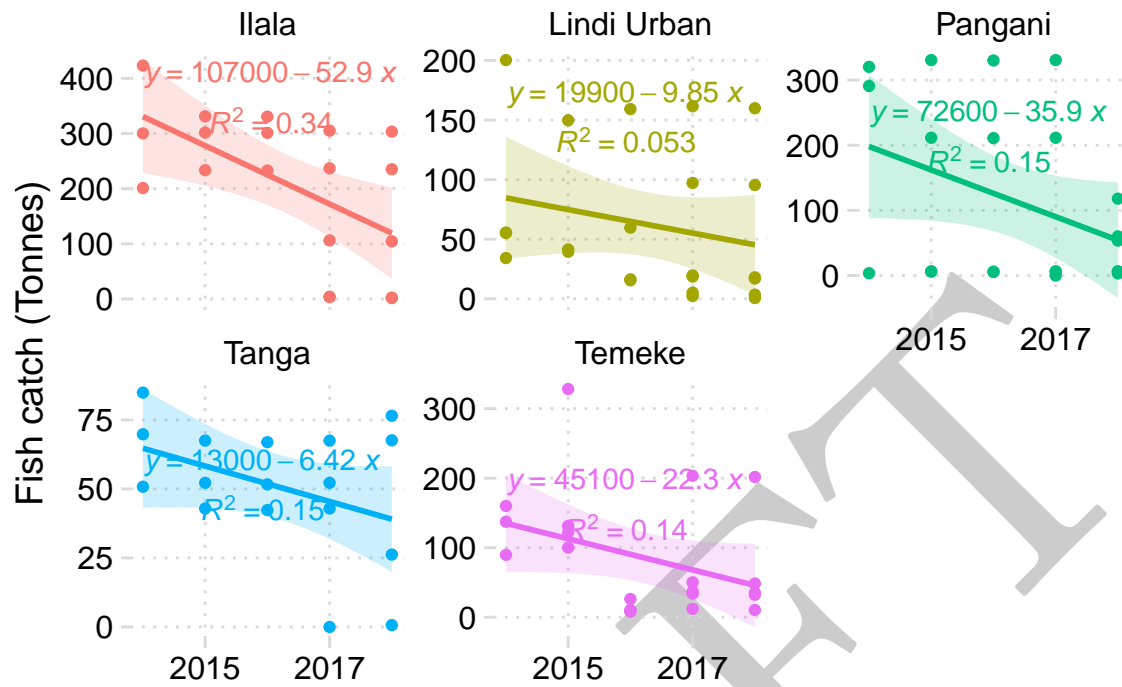


Figure 11: District in Non-Rumaki areas with relatively decline annual catches

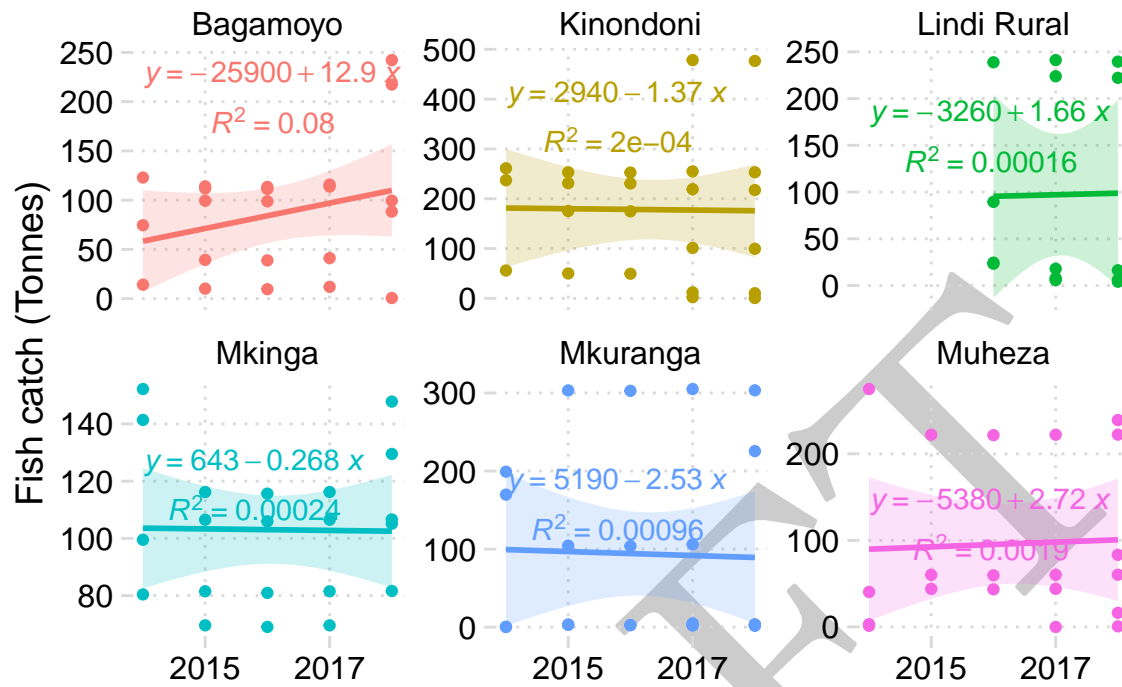


Figure 12: District in Non-Rumaki areas with relatively stable annual catches

## 1.4 Catches of common fish groups

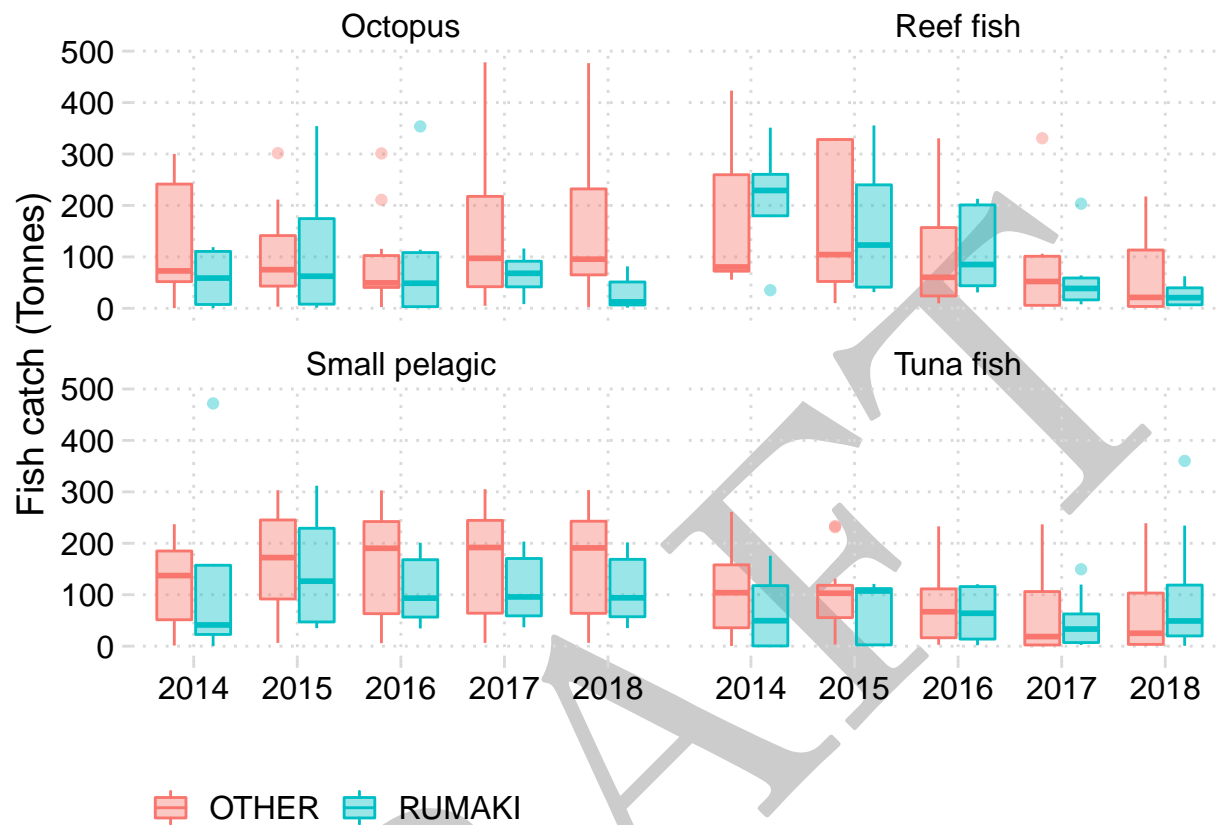


Figure 13: Catches of four common fish group in Rumaki and Non-Rumaki area

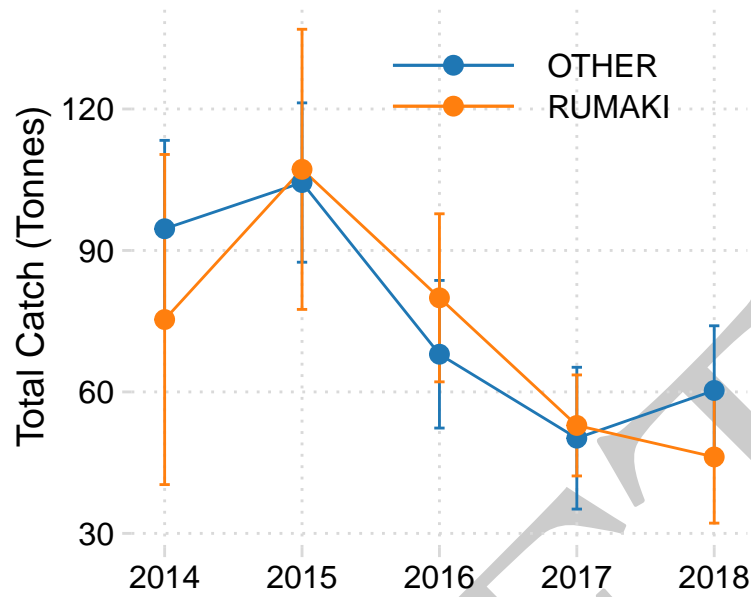


Figure 14: Catches pooled for the four common fish group in Rumaki and Non-Rumaki area

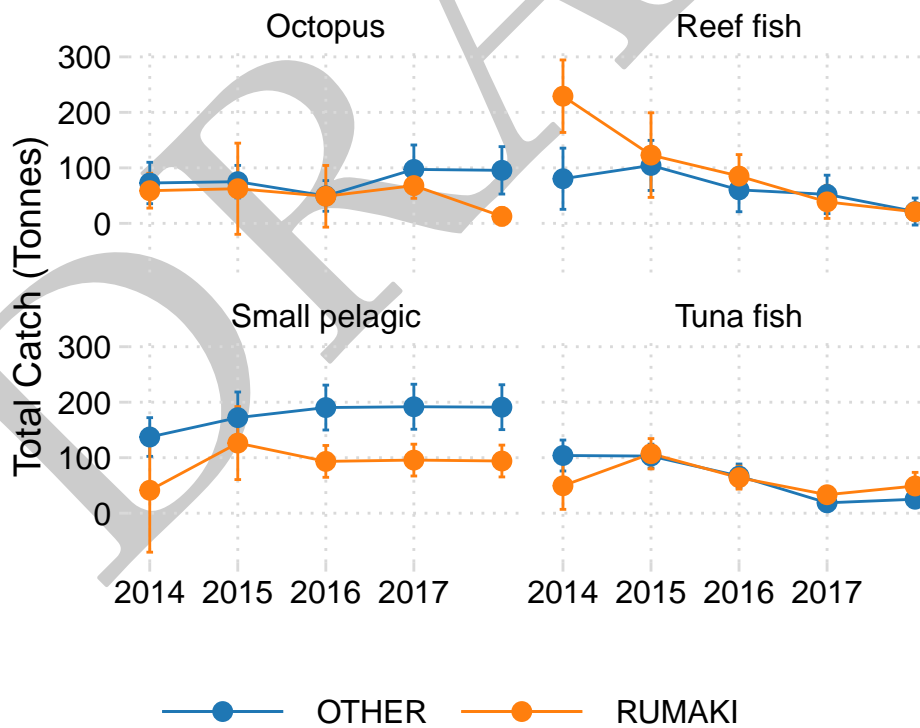


Figure 15: Mean Catches and standard error for the four common fish group in Rumaki and Non-Rumaki area

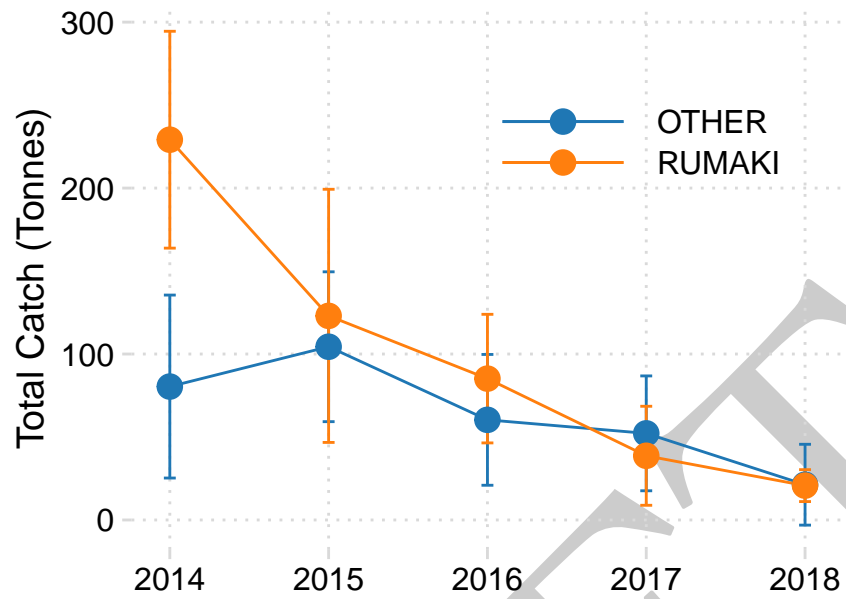


Figure 16: Reef fish catches in Rumaki and Non-Rumaki area



## 1.5 Rate of Change in Catches

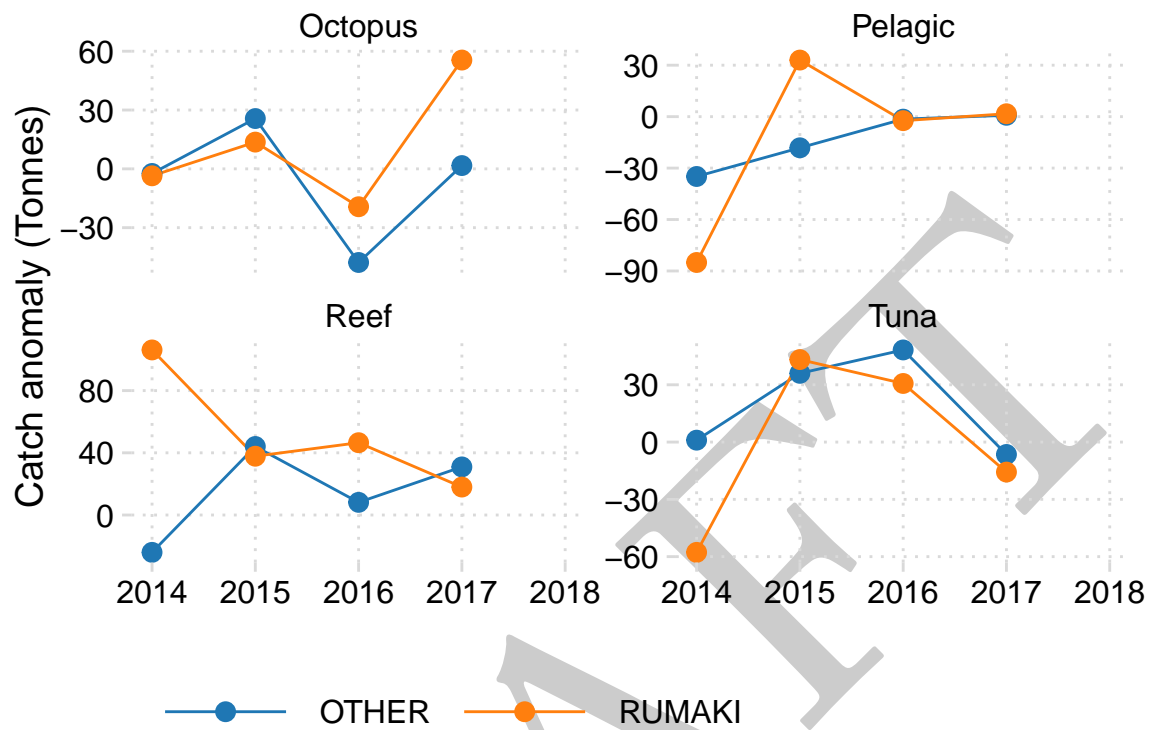


Figure 17: Catches anomaly using the 2018 catches as reference for Rumaki and Non-Rumaki area

Table 1: Annual mean averages of common fish groups

Year	Area	Fish catches (Tonnes)			
		Octopus	Reef	Pelagic	Tuna
2014	OTHER	72.75	80.40	137.30	103.95
2014	RUMAKI	58.85	229.15	41.30	49.45
2015	OTHER	75.10	104.40	172.20	102.95
2015	RUMAKI	62.40	123.00	126.35	107.20
2016	OTHER	49.44	60.34	190.38	66.94
2016	RUMAKI	48.76	85.19	93.37	63.99
2017	OTHER	97.20	52.20	191.83	18.68
2017	RUMAKI	68.09	38.69	95.71	33.29
2018	OTHER	95.53	21.26	191.05	25.16
2018	RUMAKI	12.61	20.71	94.03	49.01

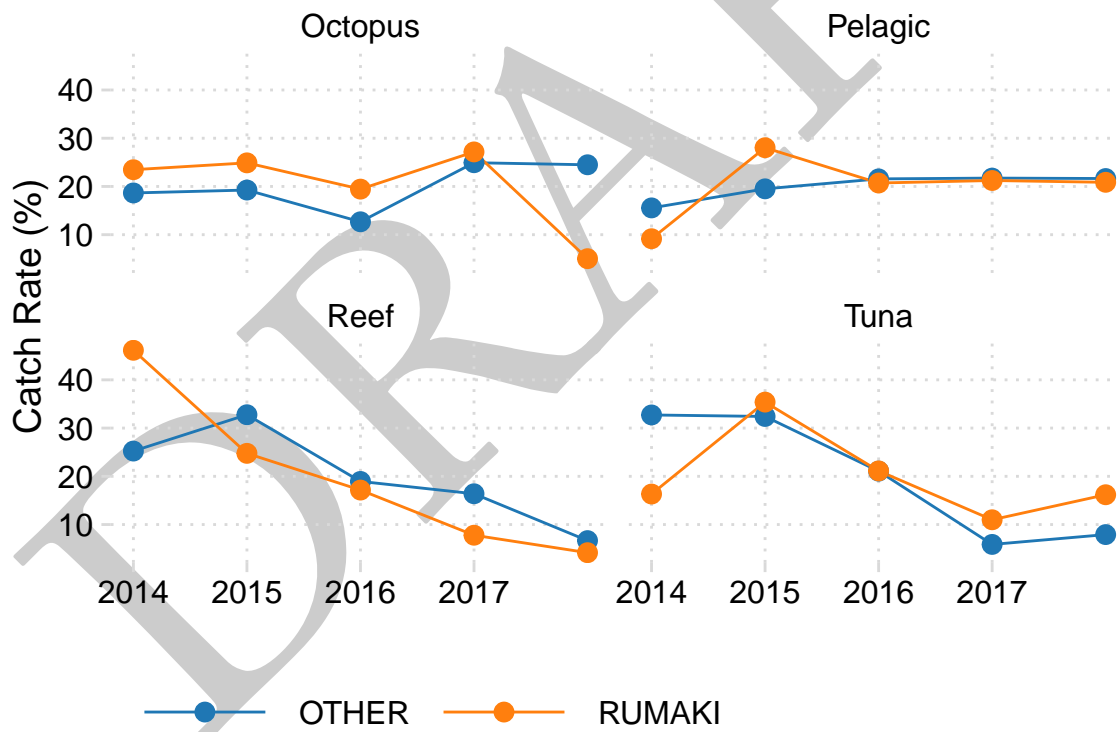


Figure 18: Rate of change of catches in percentage for Rumaki and Non-Rumaki area