



Fisheries Monitoring Handbook



Kaladupan Version

This handbook has been produced as part of the Darwin Initiative project 'Building capacity for sustainable fisheries management in the Wallacea region' managed by Operation Wallacea Trust and Indonesian project partner FORKANI

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ABOUT THIS DOCUMENT

This document refers to the methods developed by the author during the Operation Wallacea Trust Kaledupa Fisheries Pilot project 2005, 'An assessment of the fisheries of Kaledupa' over a 6 month period. The use of technical and scientific terms has been deliberately avoided to improve the transfer of concepts to as wide an audience as possible. The monitoring methodology below was designed to permit simplified analysis of the fisheries using concepts of direct relevance to fishing communities and local management, specifically CPUE, percentage mature and species diversity. More technical fisheries analysis was considered to require an unnecessary level of technical expertise and cost, and call for management actions which would be difficult to implement. Moreover, only indicators of the status of the fisheries and the effects of specific gear are collected using this methodology. This avoids making exact estimates of specific fish stocks, yield and total fishing effort, which are notoriously inaccurate and imprecise, which would lead to poorly informed management decisions.

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INTRODUCTION

Fish stock decline is caused by excessive numbers of fishers, a large number of fishers using fishing gear that target species before they mature (unsustainable fishing gear) or normally a combination of a large numbers of fishers using many unsustainable techniques. When there are too many fishers fishing for too long using unsustainable fishing techniques and catches decline year after year this is called overfishing.

Overfishing occurs where there is no management controlling the individualistic behaviour of fishers to maximise their own catch without consideration of long term sustainability of a shared resource. Fisheries monitoring in 2005 indicated that stock decline is occurring around Kaledupa. Action needs to be taken by communities to stop overfishing by managing the fishery for the profitable and equitable economic benefit of the whole community. Moreover, the fisheries need to be managed to protect food security and retain the internationally recognised high level biodiversity, which also have economic benefits for the local community. This handbook has been produced to help empower the Kaladupa community with the capacity to understand and assess their own fisheries and assist the community as a whole to make well informed managerial decisions.

Note: Stock decline is compounded by the use of habitat damaging techniques, such as bomb, cyanide or crowbar use, which reduce the capacity of the reef to support large numbers of fish.

OBJECTIVES OF FISHERS CENSUS, CREEL SURVEYS AND TRADER LOGBOOKS

Without reliable information on the status of fish stocks, level of **fishing effort** (numbers of fishers using different fishing gear) contribution to overfishing and information on which fishing gear are unsustainable, managerial decisions can not be made. Information to answer these questions is supplied by Creel surveys, Fishers' Census and Trader Logbooks.

Creel surveys record information on the status of the fish stocks by examining how good the catch is relative to the ability of the stocks to replenish them selves. Creel surveys also give information on how sustainable each individual fishing gear is and how they can be improved to be more sustainable. Creel surveys are performed by briefly questioning fishers as they land their catches and quickly weighing and measuring lengths of some fish. Creel surveys generate data on Catch per Unit Effort (CPUE), species composition and percentage of sexually mature individuals, explained below. Creel Surveys only record data on fish and not invertebrates.

Fishers Census' records the number of fishers and their fishing gear, which relates to the capacity of fishers to overfish when examined in conjunction with creel survey data. Thus if fish stocks are declining, action can be taken by the community to limit the number of fishers to the appropriate level and if adjustments to fishing techniques are required to be made more sustainable.

Trader logbooks are kept with traders of invertebrates for them to record the size and numbers of traded invertebrates, as details of invertebrate fisheries are difficult to collect easily during creel surveys. Generally traders are aware of declining invertebrate stocks and need to keep records of their transactions with fishers, thus asking them to keep records of numbers and sizes which they use for trading is not normally a problem. From the size and numbers of individuals traded for each species it can be estimated if stocks are declining over subsequent years. If stocks are declining, trader agreement can be made to only capture individuals above the size of maturation to ensure fishers are only collecting species after they have spawned.

EXAMINING DATA FROM CREEL SURVEYS AND TRADER LOGBOOKS

Catch per Unit Effort (CPUE)

CPUE is an estimate of the relative abundance of fish stocks. Maximum CPUE is attained when few fishers catch a high number of fish, where the level of fishing still leaves enough fish to reproduce, replenishing stocks and maintaining catches for future years. This situation is one of the targets of sustainable fisheries management. If too many people are fishing for too long or there are too many fishers using fishing gear that catches too many fish too fast CPUE declines as fish are less easy to catch and stocks struggle to replenish themselves. Unfortunately fishers tend to fish harder when stocks start to decline as they still require an income and the price of fish increases as fish are scarcer in the market. This increase in price also normally compensates for the increased distance fishers have to travel to new fishing grounds or the increased investment in numbers of fishing gear or lengths of nets required to make the same level of income. In this situation the CPUE is declining rapidly as fishers increase their capacity to catch fish, by rapidly increasing fishing effort and change to very efficient fishing techniques, it does not allow enough fish to escape capture and reproduce. Eventually CPUE declines to a point where fishers are forced to 'chase the last fish' in a futile attempt to make a living, which drives stocks so low they can not replenish themselves and eventually stocks collapse to unfishable levels – and in some cases this causes local extinction.

By plotting the CPUE each year fisheries managers can establish if CPUE is still increasing and the fisheries has not yet reached Maximum CPUE (reflecting a healthy fishery), or detect if CPUE is declining (indicating a collapsing fishery and confirming that management action is required). Local CPUE can also be compared to other similar tropical fisheries to check if the local CPUE is good or bad.

Species Composition

Change in species composition is the change the percentage of different species within a catch. As species can be grouped into similar feeding habits (predators, omnivores, detritivores, coralivores, herbivores and planktivores), the change in the percentage of different feeding groups caught can be examined every year. The change in the percentage of feeding groups and even of specific species can provide an indication of the level of fishing and can indicate whether fishing is causing irreversible changes in fish species caught. Changes in fish species caught are normally from high value fish to small species with little market value.

Percentage of sexually mature individuals

The percentage of sexually mature individuals per species in catches indicates the impact of fishing techniques on the reproductive capacity of stocks. The percentage of sexually mature individuals is calculated by comparing the mean fish (from Creel Surveys) or invertebrate (from Trader Logbooks) lengths of a species to the sizes of maturation required for each species. The sizes of maturation required for each species are listed in scientific publications. Generally, management should try to minimise any capture of fish or invertebrates below the size of maturation to avoid the capture of most fish before they can reproduce.

STRUCTURE OF CREEL FISH SURVEYS 2007

Within the Kaledupan villages of Bala suna, Darawa, Kaswari/Peropa, Langge, Lualua/Levuto, Lentea, and Sombano, two fishermen will be trained and within the Bajo villages of Mantigola and Sama Bahari four fishermen will be trained, as Fisheries Monitors (FMs) to carry out (fish only) creel surveys. FMs will collect information over a 24hr period within their village on a day randomly selected by the database manager and catch record sheets sent back to the database manager within a week. Due to tidal restrictions on fishing activity this normally means that FMs only need to be active when fishers return. FMs should position themselves so that they can see all the fishers returning to the village and develop a relationship with fishers to ensure fishers willingly participate in monitoring. FMs need to question the fisher and measure their catch before the fisher distributes the catch. FMs should try and record all fishers but if there are a number of fishers returning at one time just focused on accurately recording as many catches from each gear type as possible, irrespective of how large their catch is. A tally of the estimated total numbers of fishers per technique fishing that day should be made and sent with the catch record sheets. Fishers returning from fishing without catching anything should also be questioned, as they indicate that there may not be many fish left.

Fisheries Monitors should weigh the entire catch (to the nearest 0.1kg) using the scales and bucket, emptying the buckets onto a clean plastic sheet. Divide the fish on the sheet into piles of species. Check the Kaledupan or Bajo name on the **Fish Reference Sheet** (appendix I) against the fish book (Marine Fishes of South-East Asia) to make sure you know it by the exact scientific species as sometimes 2 different scientific species have the same local name.

Every species has a plate (Pt) and number (Nbr) which indicate which 'Plate' and number on plate identifying the species. Some of the fish on the Fish Reference Sheet are not in this book and are referred to in the Fish reference sheet with a page number like P383 which identifies the species in another book which we currently can not supply. Furthermore, there are still some local names that have not been collected and possibly some mistakes, which can be corrected if you inform the database manager.

Count the number of fish of each species and randomly selected up to 20 fish of each species and measure their length (to the nearest 0.5cm). If there are over approximately 100 fish of one species estimate the number of fish by how many fit into a bucket. Record this information on the **catch record sheet** (appendix II).

While one FM is weighing and measuring fish, the other FM should be asking the fisher questions on the catch record sheet: technique details; location; habitat; time spent fishing and travelling; estimated value of the catch; percentage of catch by weight that fishers estimate will be eaten, sold or given away as gifts; weather and season; and estimated number of days they fished in the last week.

CREEL SURVEY EQUIPMENT LIST

- Catch Record Sheets
- 10kg scale
- 5 litre plastic bucket
- 2 x2 metre tough plastic sheet
- Fish board
- Book (Marine Fishes of South-East Asia)
- Fish reference sheet
- Clip board
- Pencils

INVERTEBRATE MIDDLEMEN LOG BOOKS

Fisheries Officers setup logbooks with local middlemen to record catches of octopus, lobster, seacucumbers and any other commercially traded invertebrate. Logbooks are checked and copied once a month by fisheries officers and copies sent to database manager.

APPENDIX I FISH REFERENCE SHEET

Kaladupan	Sombano	Darawa	Scientific	Pt	Nbr	Maturesize
			<i>Lutjanus biguttatus</i>	43	4	9.6
			<i>Pristipomoides auricilla</i>	44	5	18.5
			<i>Pristipomoides zonatus</i>	44	7	21.6
			<i>Gymnocranius frenatus</i>	48	6	15.8
			<i>Acanthurus triostegus</i>	94	8	11.6
			<i>Cymbacephalus beauforti</i>	P383		21.7
Alu	Alu	Alu	<i>Sphyræna barracuda</i>	69	12	65.4
Andou			<i>Pterocaesio lativittata</i>	46	7	6.6
Andou	Andou	Andou	<i>Caesio caeruleaurea</i>	46	3	15.8
Andou meha	Andou meha	Andou meha	<i>Pterocaesio tile</i>	46	6	13.8
Anggora	Anggora	Anggora	<i>Selar boops</i>	39	7	12.8
Baga (a)	Baga (a)	Baga	<i>Lutjanus johnii</i>	43	9	29.2
Baga (b)	Baga (b)	Baga	<i>Symphorus nematophorus</i>	41	9	38.1
Baga (c)	Baga (c)	Baga	<i>Lutjanus rivulatus</i>	42	9	31.9
Balaki	Balaki	Balaki	<i>Auxis rochei</i>	97	9	21.7
Balang kuni (a)	Balang kuni (a)	Balang kuni	<i>Thunnus obesus</i>	96	9	84.3
Balang kuni (b)	Balang kuni (b)	Balang kuni	<i>Thunnus albacares</i>	96	8	74.9
Barusa			<i>Cheilodipterus singapurensis</i>	34	3	8.6
Bete lalaki olo	Bete lalaki	Bete lalaki olo	<i>Amblygaster sirm</i>	6	7	11.3
Bisuko	Bisuko	Bisuko	<i>Herklotsich quadrimaculatus</i>	6	9	7.3
Bokku-bokku (a)	Bokku-bokku (a)	Bokku-bokku	<i>Hemiglyphidodon plagiometopon</i>	61	12	7.5
Bokku-bokku (b)	Bokku-bokku (b)	Bokku-bokku	<i>Dischistodus perspicillatus</i>	62	17	7.9
Borona (a)	Borona (a)	Borona	<i>Siganus guttatus</i>	93	15	14.3
Borona (b)	Borona (b)	Birona makuri	<i>Siganus doliatus</i>	92	15	11.3

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Borona buri	Borona buri	Borona buri	<i>Siganus lineatus</i>	92	12	14.6
Borona makuri	Borona makuri	Borona makuri	<i>Siganus puellus</i>	93	13	17.0
Borona makuri			<i>Siganus vulpinus</i>	93	16	11.3
Borona tanda biru	Borona tanda biru	Borona tanda biru	<i>Siganus trispilos</i>	92	14	11.7
Borona watu	Borona watu	Birona biru	<i>Siganus punctatus</i>	92	10	17.8
Borutu	Borutu	Borutu	<i>Diodon liturosus</i>	105	14	20.0
Bubu bubu			<i>Lactoria cornuta</i>	103	1	20.1
Bukku nuo'o	Bukku nuo'o	Bukku nuo'o	<i>Zanclus cornatus</i>	92	9	10.9
Bula-bulafa (a)	Bula-bulafa (a)	Bula-bulafa	<i>Priacanthus sagittarius</i>	31	6	13.4
Bula-bulafa (b)	Bula-bulafa (b)	Bula-bulafa	<i>Priacanthus hamrur</i>	31	4	15.6
Bula-bulafa (c)	Bula-bulafa (c)	Bula-bulafa	<i>Priacanthus macracanthus</i>	31	3	14.0
Bula-bulafa (d)	Bula-bulafa (d)	Bula-bulafa	<i>Heteropriacanthus cruentatus</i>	31	2	21.9
Bulu tooge	Bulu tooge	Bulu tooge	<i>Elops hawaiiensis</i>	6	1	29.2
Cakala biru	Cakala biru	Cakala biru	<i>Euthynnus affinis</i>	97	7	35.5
Dakke (a)	Dakke (a)	Dakke	<i>Naso tuberosus</i>	94	12	25.5
Dakke (b)	Dakke (b)	Dakke	<i>Naso vlamingii</i>	93	9	25.5
Fai-fai (a)	Fai-fai (a)	Fai-fai	<i>Scolopsis monogramma</i>	50	7	14.2
Fai-fai (b)	Fai-fai (b)	Fai-fai	<i>Scolopsis margaritifer</i>	51	11	13.0
Falampopa	Falampopa	Falampopa	<i>Ostracion cubicus</i>	103	3	19.8
Falo-falo	Falo-falo	Falo-falo	<i>Sphyraena obtusata</i>	69	14	16.9
Fangu ijo			<i>Scarus chameleon (tp: male)</i>	80	9	20.0
Fangu ijo	Fangu ijo	Fangu ijo	<i>Chlorurus sordidus (IP: female)</i>	81	8	17.8
Fangu kakanda	Fangu kakanda	Fangu kakanda	<i>Cetoscarus bicolor (TP: male)</i>	80	2	60.0
Fangu mohute	Fangu mohute	Lehe mohute	<i>Hipposcarus longiceps</i>	80	5	18.6
Fangu tambaga	Fangu tambaga	Lehe tambaga	<i>Scarus ghobban (TP: male)</i>	80	8	62.0
Fara-fara	Fara-fara	Fara-fara	<i>Pristipomoides flavipinnis</i>	44	6	26.4
Fee-fee	Fee-fee	Fee-fee	<i>Cheilio inermis</i>	74	1	21.7
Fee-fee olo			<i>Malacanthus latovittatus</i>	46	14	19.8

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Fesui (a)	Fesui	Fesui	<i>Sargocentron spiniferum</i>	14	12	19.8
Fesui (b)	Mongintaho	Fesui	<i>Sargocentron caudimaculatum</i>	15	10	11.7
Fifira buri	Fifira buri	Fifira buri	<i>Plectorhinchus chaetodontoides</i>	45	2	29.9
Fifira buri			<i>Plectorhinchus chaetodontoides (juvenile)</i>	45	2	29.9
Fifira makuri	Fifira makuri	Fifira makuri	<i>Diagramma pictum</i>	44	9	33.0
Fonti			<i>Mugil cephalus</i>	69	5	40.7
Fonti	Fonti	Fonti	<i>Valamugil buchanani</i>	69	6	40.0
Fonti mohute			<i>Liza subviridis</i>	69	2	15.8
Fonti tambora	Fonti tambora	Fonti tambora	<i>Liza vaigiensis</i>	69	3	26.6
Funa			<i>Zabidius novemacaleatus</i>	54	8	19.8
Gurou			<i>Sargocentron microstoma</i>	15	16	8.6
Hai komoa			<i>Taeniura lymma</i>	5	4	13.8
Hai lero			<i>Taeniura meyeni</i>	5	3	114.8
Hone-honeke	Hone-honeke	Hone-honeke	<i>Xyrichtys pavo</i>	78	10	18.2
Hongoli	Hongoli	Hongoli	<i>Novaculichthys taeniurus</i>	78	12	13.8
Hoppa (a)	Hoppa	Hoppa	<i>Fistularia commersonii</i>	16	8	60.6
Hoppa (b)	Hoppa makuri	Hoppa	<i>Fistularia petimba</i>	16	9	73.8
Ilo	Ilo	Ilo	<i>Pempheris oualensis</i>	53	10	9.6
Ilo mohute (a)	Ilo mohute (a)	Ilo mohute	<i>Kyphosus bigibbus</i>	53	12	31.0
Ilo mohute (b)	Ilo mohute (b)	Ilo mohute	<i>Kyphosus vaigiensis</i>	53	14	29.2
Ilo mohute (c)	Ilo mohute (c)	Ilo mohute	<i>Kyphosus cornelii</i>	53	13	29.2
Ka karenga	Ka karenga	Ka karenga	<i>Oxycheilinus diagrammus</i>	71	7	17.8
Kadafo	Kadafo	Kadafo	<i>Lethrinus miniatus</i>	47	6	30.2
Kadafo betomba	Kadafo betomba	Kadafo betomba	<i>Lethrinus lentjan</i>	47	11	26.1
Kadafo komoa			<i>Lethrinus amboinensis</i>	48	13	29.2
Kadafo mohute		Tarifande	<i>Lethrinus obsoletus</i>	48	7	25.5
Kadafo ngulu			<i>Gymnocranius euanus</i>	48	3	21.0
Kadafo one	Kadafo one	Kadafo one	<i>Lethrinus rubrioperculatus</i>	47	12	21.7

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Kadafo onuhi	Kadafo onuhi	Kadafo onuhi	<i>Lethrinus erythropterus</i>	48	12	21.7
Kadafo pudu	Kadafo pudu	Kadafo pudu	<i>Lethrinus atkinsoni</i>	106	2	20.8
Kadafo rondo (a)	Kadafo rondo (a)	Kadafo rondo	<i>Lethrinus semicinctus</i>	48	16	15.8
Kadafo rondo (b)	Kadafo rondo (b)	Tarifande kandole	<i>Lethrinus genivittatus</i>	47	10	11.7
KADAFO TANDA or SALAFAU	Kadafo tanda or Salafau	Kadafo tanda or Salafau	<i>Lethrinus harak</i>	48	15	21.7
Kaka	Kaka	Kaka	<i>Psammoperca waigiensis</i>	30	2	20.5
Kalaero	Kalaero	Kalaero	<i>Terapon jarbua</i>	30	11	16.2
Kaleppa			<i>Dexillichthys muelleri</i>	98	11	8.8
Kaleppa			<i>Phyllichthys punctatus</i>	98	16	11.3
Kaleppa (a)	Kaleppa (a)	Kaleppa	<i>Bothus pantherinus</i>	98	9	17.4
Kaleppa (b)	Kaleppa (b)	Kaleppa	<i>Pseudorhombus jenynsii</i>	98	5	15.4
Kali bomba (a)	Kali bomba (a)	Kali bomba	<i>Chaetodon auriga</i>	55	5	10.9
Kali bomba (b)	Kali bomba (b)	Kali bomba	<i>Chaetodon citrinellus</i>	55	7	6.6
Kali bomba (c)	Kali bomba (c)	Kali bomba	<i>Chaetodon meyeri</i>	55	10	8.8
Kali bomba (d)	Kali bomba (d)	Kali bomba	<i>Chaetodon trifasciatus</i>	56	6	7.5
Kali bomba (e)	Kali bomba (e)	Kali bomba	<i>Chaetodon melannotus</i>	57	11	7.5
Kali bomba (f)	Kali bomba (f)	Kali bomba	<i>Chaetodon vagabundus</i>	57	12	10.9
Kali bomba bukku femba (a)	Kali bomba bukku femba (a)	Kali bomba bukku femba (a)	<i>Heniochus chrysostomus</i>	56	10	8.8
Kali bomba bukku femba (b)	Kali bomba bukku femba (b)	Kali bomba bukku femba (b)	<i>Heniochus diphreutes</i>	56	13	8.8
Kali bomba bukku femba (c)	Kali bomba bukku femba (c)	Kali bomba bukku femba (c)	<i>Heniochus varius</i>	56	14	9.2
Kalibomba			<i>Chaetodon rafflesi</i>	57	3	7.5
Kalibomba (abc)			<i>Chaetodon Adiergastos</i>	55	3	7.9
Kalibomba makuri			<i>Chaetodon kleinii</i>	55	11	7.5
Kambala			<i>Cypselurus sp.</i>	13	1	
Kambala	Kambala	Kambala	<i>Cypselurus spilopterus</i>	Na	Na	11.7
Kandetimu			<i>Nemipterus nematophorus</i>	49	10	13.4
Karangka			<i>Apogon bandanensis</i>	32	10	5.2
Karangka akka	Karangka akka	Karangka akka	<i>Apogon trimaculatus</i>	35	12	7.9

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Karangka fatu	Karangka fatu	Karangka fatu	<i>Cheilodipterus macrodon</i>	31	10	11.3
Karisi (a)	Karisi (a)	Karisi	<i>Nemipterus celebicus</i>	49	3	10.5
Karisi (b)	Karisi (b)	Karisi	<i>Nemipterus balinensis</i>	49	1	8.8
Kenta beka			<i>Grammistes sexlineatus</i>	28	5	13.8
Kenta bete (a)	Kenta bete (a)	Kenta bete	<i>Leiognathus smithursti</i>	40	15	7.9
Kenta bete (b)	Kenta bete (b)	Kenta bete	<i>Leiognathus equulus</i>	40	12	11.2
Kenta bisara (a)	Kenta bisara biru	Kenta bisara (a)	<i>Synodus variegatus</i>	11	14	17.8
Kenta bisara (b)	Kenta bisara makuri	Kenta bisara (b)	<i>Saurida gracilis</i>	11	16	14.6
Kenta bolu			<i>Chanos chanos</i>	6	3	20.1
Kenta fatu	Kenta fatu	Kenta fatu	<i>Synanceja verrucosa</i>	18	19	17.8
Kenta kabulu	Kenta kabulu	Kenta kabulu	<i>Plectorhinchus lessoni</i>	44	8	17.8
Kenta kabulu	Kenta kabulu	Kenta kabulu	<i>Plectorhinchus oreintalis</i>	44	10	35.0
Kenta kanari	Kenta kanari mohute	Kenta kanari	<i>Neoniphon sammara</i>	14	6	14.6
Kenta kanari	Kenta kanari meha	Kenta kanari	<i>Sargocentron diadema</i>	14	9	7.9
Kenta kanari	Kenta kanari sirip biru	Kenta kanari	<i>Neoniphon openrcularis</i>	15	8	15.8
Kenta kanari	Kenta kanari	Kenta kanari	<i>Sargocentron cornutum</i>	15	11	8.5
Kenta kanari	Kenta kanari ijo	Nggurou	<i>Neoniphon argenteus</i>	15	6	11.3
Kenta kanari meha			<i>Sargocentron ittodai</i>	15	12	9.6
Kenta kanene	Kenta kanene	Kenta kanene	<i>Aphareus rutilans</i>	43	1	43.5
Kenta kodipo			<i>Rhizoprionodon acutus</i>	3	6	65.6
Kenta kombu			<i>Arothron nigropunctatus</i>	103	16	15.0
Kenta kumbou	Kenta kumbou biru	Kenta kumbou	<i>Papilloculiceps nematophthalmus</i>	21	12	29.0
Kenta kumbou			<i>Onigocia spinosa</i>	21	15	6.6
Kenta kumbou	Kenta kumbou makuri	Kenta kumbou	<i>Rogadius asper</i>	21	20	8.4
Kenta kurung kurung	Ole	Kenta kurung kurung	<i>Spratelloides robustus</i>	6	16	6.2
Kenta kuu	Kenta kuu	Kenta kuu fadu	<i>Acanthurus leucocheilus</i>	95	11	18.0
Kenta kuu	Kenta kuu	Kenta kuu	<i>Ctenochaetus binotatus</i>	95	16	10.5
Kenta kuu fadu	Kenta kuu fadu	Kenta kuu fadu	<i>Acanthurus nigricauda</i>	95	9	17.8

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Kenta kuu fadu	Kenta kuu fadu	Kenta kuu fadu	<i>Acanthurus xanthopterus</i>	95	13	29.2
Kenta kuu fiha	Kenta kuu fiha	Kenta kuu fiha	<i>Ctenochaetus striatus</i>	94	9	10.9
Kenta kuu futa	Kenta kuu futa	Kenta kuu wuta	<i>Acanthurus nigricans</i>	94	2	10.2
Kenta kuu mohato	Kenta kuu mohato	Kenta kuu mohato	<i>Zebрасoma scopas</i>	94	15	9.6
Kenta kuu ragi-ragi	Kenta kuu ragi-ragi	Kenta kuu ragi-ragi	<i>Acanthurus lineatus</i>	94	4	17.0
Kenta kuu tanda meha	Kenta kuu tanda meha	Kenta kuu tanda meha	<i>Acanthurus olivaceus</i>	94	6	15.8
Kenta mbula			<i>Myripristis hexagonatus</i>	14	2	13.8
Kenta medosa	Kenta medosa	Kenta medosa	<i>Epibulus insidiator</i>	75	1	23.2
Kenta meha	Kenta meha	Loppongoo	<i>Lutjanus gibbus</i>	43	8	18.4
Kenta melayare	Kenta melayare	Kenta melayare	<i>Istiophorus platypterus</i>	96	5	117.3
Kenta mombi			<i>Abudefduf vaigiensis</i>	61	4	9.6
Kenta opa	Kenta opa	Kenta opa	<i>Caesio lunaris</i>	45	12	17.8
Kenta opa iku makuri	Kenta opa iku makuri	Kenta opa iku makuri	<i>Caesio cuning</i>	45	11	25.5
Kenta opa iku makuri	Kenta opa iku makuri	Kenta opa iku makuri	<i>Caesio teres</i>	46	1	17.8
Kenta pute	Kenta pute	Kenta pute	<i>Gerres acinaces</i>	P136		15.8
Kenta timu	Kenta timu	Kentatimu	<i>Anampses lennardi</i>	70	3	13.0
Kenta timu	Kenta timu	Kenta timu	<i>Anampses meleagrides</i>	70	4	10.5
Kenta Tumolla (a)	Tumolla (a)	Tumolla	<i>Lutjanus ehrenbergi</i>	43	6	15.8
Kenta Tumolla (b)	Tumolla (b)	Koni melampa	<i>Lutjanus russelli</i>	42	12	21.7
Kikiaa	Kikiaa	Kikiaa	<i>Lethrinus nebulosus</i>	47	8	27.9
Koa - koa			<i>Carangoides malabaricus</i>	37	16	25.5
Kofasi	Kofasi	Kofasi	<i>Anodontostoma chacunda</i>	6	11	8.4
Koka molokka			<i>Cypho purpureus</i>	29	17	4.0
Kola biru	Kola biru	Kola biru	<i>Siganus canaliculatus</i>	92	13	14.8
Kola bungi	Kola bungi	Kola bungi	<i>Siganus spinus</i>	93	6	11.0
Kola mohute	Kola mohute	Kola mohute	<i>Siganus fuscescens</i>	92	11	17.8
Kompa bunga moliri	Kompa bunga moliri	Kompa bunga moliri	<i>Gymnothorax fimbriatus</i>	7	9	32.8
Komparu	Komparu	Komparu	<i>Pseudobalistes flavimarginatus</i>	101	1	25.7

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Komparu fatu	Komparu fatu	Komparu fatu	<i>Balistoides viridescens</i>	100	3	31.0
Komparu ndokke	Komparu ndokke	Komparu ndokke	<i>Pseudobalistes fuscus</i>	100	7	23.6
Koni meinte	Koni meinte	Koni meinte	<i>Lutjanus argentimaculatus</i>	41	10	40.7
Koni meinte	Koni meinte	Koni meinte	<i>Lutjanus malabaricus</i>	42	4	37.9
Kotoha	Kotoha	Kotoha	<i>Lutjanus bohar</i>	41	12	26.8
Kotoha	Kotoha	Kotoha	<i>Lutjanus lemniscatus</i>	42	14	27.3
Kurapu meha	Kurapu meha	Kurapu meha	<i>Epinephelus morrhua</i>	25	8	36.4
Kuu fadu			<i>Acanthurus auranticavus</i>	95	15	15.8
Kuwoni	Kuwoni	Kuwoni	<i>Lutjanus rufolineatus</i>	42	5	9.6
Lamada	Lamada	Lamada	<i>Coryphaena hippurus</i>	39	1	83.6
Lamu-lamu	Lamu-lamu	Lamu-lamu	<i>Choerodon cyanodus</i>	74	3	29.2
Lamu-lamu kakanda	Lamu-lamu kakanda	Lamu-lamu kakanda	<i>Choerodon jordani</i>	74	6	8.4
Lamu-lamu wungo	Lamu-lamu wungo	Lamu-lamu wungo	<i>Choerodon rubescens</i>	74	5	36.4
Lanti	Lanti	Lanti	<i>Epinephelus magniscuttis</i>	25	7	57.2
Lehe	Lehe	Lehe	<i>Leptoscarus vaigiensis</i>	80	4	14.7
Lehe	Lehe	Lehe	<i>Scarus dimidiatus (IP: female)</i>	80	7	15.8
Lehe	Lehe	Lehe	<i>Scarus globiceps (TP: male)</i>	81	2	12.6
Lehe	Lehe	Lehe	<i>Scarus prasiognathus</i>	81	4	29.2
Lehe	Lehe	Lehe	<i>Scarus rubroviolaceus (IP: female)</i>	81	6	29.2
Lehe	Lehe	Lehe	<i>Scarus schlegeli (IP: female)</i>	81	7	14.4
Lehe	Lehe	Lehe	<i>Scarus oviceps (ip: female)</i>	81	3	13.8
Lehe	Lehe	Lehe	<i>Scarus rivulatus (tp: male)</i>	81	9	17.8
Lehe biru	Lehe biru	Lehe biru	<i>Chlorurus bleekeri (TP: male)</i>	82	2	39.0
Lehe biru	Lehe biru	Lehe biru	<i>Chlorurus bleekeri (IP: female)</i>	82	2	21.3
Lehe biru	Lehe biru	Lehe biru	<i>Scarus niger (unicolour)</i>	82	7	17.8
Lehe biru	Lehe biru	Lehe biru	<i>Scarus viridifucatus (unicolour)</i>	P187		14.6
Lehe fangu	Lehe fangu	Lehe fungu	<i>Scarus ghobban (IP: female)</i>	80	8	36.4
Lehe fatu	Lehe fatu	Lehe fatu	<i>Chlorurus sordidus (TP: male)</i>	81	8	26.0

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Lehe fatu (b)	Lehe fatu (b)	Lehe fatu (b)	<i>Scarus frenatus (TP: male)</i>	80	6	36.0
Lehe fatu (c)	Lehe fatu (c)	Lehe fatu (c)	<i>Scarus oviceps (tp: male)</i>	81	3	25.0
Lehe ijo	Lehe ijo	Lehe ijo	<i>Scarus dimidiatus (TP: male)</i>	80	7	22.0
Lehe ijo	Lehe ijo	Lehe ijo	<i>Scarus psittacus (TP: male)</i>	81	5	20.0
Lehe ijo	Lehe ijo	Lehe ijo	<i>Scarus rubroviolaceus (TP: male)</i>	81	6	48.0
Lehe ijo	Lehe ijo	Lehe ijo	<i>Scarus schlegeli</i>	81	7	14.4
Lehe kakanda	Lehe kakanda	Lehe kakanda	<i>Scarus flavipectoralis (unicolour)</i>	82	3	13.8
Lehe kakanda	Lehe kakanda	Lehe kakanda	<i>Scarus quoyi (unicolour)</i>	82	10	10.0
Lehe kakanda karenga	Lehe kakanda karenga	Lehe kakanda karenga	<i>Scarus frenatus (IP: female)</i>	80	6	20.5
Lehe kofungo/ lehe firiso	Lehe kofungo/ lehe firiso	Lehe kofungo/ lehe firiso	<i>Scarus psittacus (IP: female)</i>	81	5	11.5
Lehe mohute			<i>Hipposcarus longiceps (ip: female)</i>	80	5	10.0
Lehe mohute	Lehe mohute	Lehe mohute	<i>Scarus rivulatus (IP: female)</i>	81	9	17.8
Lehe rata iku	Lehe	Lehe ijo	<i>Scarus chameleon (ip: female)</i>	80	9	14.2
Loba-loba	Loba-loba	Loba-loba	<i>Gazza minuta</i>	40	10	10.2
Lobu kikiaa			<i>Lethrinus nebulosus (juvenile)</i>	47	8	27.9
Lokal-loka	Lokal-loka	Lokal-loka	<i>Malacanthus brevirostris</i>	40	4	14.6
Lombe			<i>Arothron hispidus</i>	103	13	21.7
Lombe	Lombe	Lombe	<i>Chilomycterus spilostylus</i>	105	15	15.4
Lompa-lompa	Lompa-lompa	Lompa-lompa	<i>Aphareus furca</i>	41	1	29.2
Lompa-lompa	Lompa-lompa	Lompa-lompa	<i>Aprion virescens</i>	41	2	41.8
Lompa-lompa	Lompa-lompa	Lompa-lompa	<i>Etelis carbunculus</i>	41	3	50.0
Lompa-lompa	Lompa-lompa	Lompa-lompa	<i>Etelis radiusus</i>	41	4	32.8
Lompa-lompa	Lompa-lompa	Lompa-lompa	<i>Pristipomoides filamentosus</i>	41	6	34.5
Longe	Longe	Longe	<i>Bodianus mesothorax</i>	71	3	11.7
Lutu-lutu	Lutu-lutu	Lutu-lutu	<i>Acanthurus mata</i>	94	1	21.7
Mambulo	Mambulo	Mambulo	<i>Megalaspis cordyla</i>	38	15	27.1
Mambulo	Mambulo	Mambulo	<i>Gymnosarda unicolor</i>	97	12	80.2
Mangkarania	Mangkarania	Mangkarania	<i>Symphoricthys spilurus</i>	44	2	25.5

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Mangkarnia	Mangkarnia	Mangkarnia	<i>Cephalopholis polleni</i>	P155		19.0
Mbula	Mbula biasa	Mbula	<i>Myripristis murdjan</i>	14	5	13.8
Mbula	Mbula mensoi	Mbula	<i>Myripristis pralinia</i>	15	3	9.6
Mbula	Mbula biru	Mbula	<i>Myripristis violacea</i>	15	4	10.9
Mbula	Mbula mohute naikuno	Mbula	<i>Myripristis vittata</i>	15	5	11.7
Mbula mudukeo	Mudukeo	Mbula mudukeo	<i>Myripristis adusta</i>	14	1	15.8
Melamu or Hone-honeke	Melamu or Hone-honeke	Melamu or Hone-honeke	<i>Hemigymnus melapterus</i>	75	12	36.4
Menami	Menami	Menami	<i>Cheilinus undulatus</i>	71	11	83.1
Moma	Moma	Moma	<i>Decapterus macrosoma</i>	38	13	14.4
Mono	Mono	Mono	<i>Siganus argenteus</i>	93	14	13.6
Moturu oloo (a)	Tai pere or Tai repe	Tai pere or Tai repe	<i>Cheilinus trilobatus</i>	70	12	19.8
Moturu oloo (b)	Moturu oloo	Moturu oloo	<i>Cheilinus unifasciatus</i>	70	11	20.1
Nama-nama	Nama-nama	Nama-nama	<i>Scarus globiceps (IP: female)</i>	81	2	12.6
Ndoma	Ndoma	Ndoma	<i>Sphyræna jello</i>	69	11	55.4
Nona'a	Nona'a	Nona'a	<i>Chilomycterus reticulatus</i>	105	16	23.6
Oitu			<i>Euristhmus nudiceps</i>	11	3	15.0
Oitu	Oitu	Oitu	<i>Plutodus lineatus</i>	11	5	16.0
Oitu			<i>Paraplotosus albilabris</i>	11	6	51.8
Okke	Okke	Okke	<i>Epinephelus coioides</i>	24	4	36.5
Okke	Okke	Okke	<i>Epinephelus tukula</i>	24	5	73.8
Okke	Okke	Okke	<i>Epinephelus miliaris</i>	25	6	19.0
Okke	Okke	Okke	<i>Plectropomus laevis (grey colour morph)</i>	25	12	48.7
Okke	Okke	Okke	<i>Gracila albomarginata</i>	26	1	17.8
Okke	Okke	Okke	<i>Cephalopholis cyanostigma</i>	26	6	15.8
Okke	Okke	Okke	<i>Epinephelus areolatus</i>	23	3	16.8
Okke	Okke	Okke	<i>Epinephelus fasciatus</i>	23	6	17.8
Okke	Okke	Okke	<i>Epinephelus malabaricus</i>	25	1	84.7
Okke	Okke	Okke	<i>Cephalopholis spiloparaea</i>	26	4	10.5

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Okke	Okke	Okke	<i>Cephalopholis sexmaculata</i>	26	5	20.9
Okke	Okke	Okke	<i>Epinephelus cyanopodus</i>	26	8	47.7
Okke	Okke	Okke	<i>Cephalopholis aurantia</i>			25.5
Okke (tiger besar)	Okke (tiger besar)	Okke (tiger besar)	<i>Epinephelus fuscoguttatus</i>	23	8	35.6
Okke (tiger kecil)	Okke (tiger kecil)	Okke (tiger kecil)	<i>Epinephelus polyphekadion</i>	23	11	36.4
Okke beka	Okke beka	Okke beka	<i>Cromileptes altivelis</i>	22	10	29.2
Okke biru	Okke biru	Okke biru	<i>Epinephelus bontoides</i>	P158		13.8
Okke buri meha	Okke buri meha	Okke	<i>Cephalopholis miniata</i>	22	5	19.8
Okke buri mohute	Okke buri mohute	Okke buri mohute	<i>Epinephelus ongus</i>	25	10	15.8
Okke dalika	Okke dalika	Okke dalika	<i>Cephalopholis argus</i>	22	4	23.6
Okke koka	Okke koka	Okke koka	<i>Aethaloperca rogae</i>	23	1	25.5
Okke makuri (a)	Okke makuri (a)	Okke makuri (a)	<i>Plectropomus laevis (yellow colour morph)</i>	25	12	48.7
Okke meha	Okke meha	Okke meha	<i>Cephalopholis sonnerati</i>	22	8	24.3
Okke meha (c)	Okke meha (c)	Okke meha (c)	<i>Variola albimarginata</i>	P164		25.5
Okke mohute	Okke mohute	Okke mohute	<i>Anyperodon leucogrammicus</i>	22	1	22.4
Okke ndoke	Okke ndoke	Okke ndoke	<i>Epinephelus lanceolatus</i>	24	12	96.2
Okke olo (a)	Okke olo (a)	Okke olo (a)	<i>Plectranthias japonicus</i>	22	15	7.5
Okke olo (b)	Okke olo (b)	Okke olo (b)	<i>Cephalopholis urodeta</i>	22	9	13.0
Okke tembaga	Okke tembaga	Okke buri	<i>Epinephelus maculatus</i>	26	7	25.6
Okke tulareke (a)	Okke tulareke (a)	Okke tulareke (a)	<i>Epinephelus caeruleopunctatus</i>	23	4	31.4
Ommuu			<i>Pentaprion longimanus</i>	50	13	8.8
Ommuu	Ommuu	Ommuu	<i>Gerres oyena</i>	50	15	13.8
Ommuu			<i>Gerres subfasciatus</i>	50	16	9.6
Onga onga			<i>Naso annulatus</i>	93	3	40.0
Onga-onga			<i>Naso hexacanthus</i>	93	5	13.0
Onuhi	Onuhi	Onuhi	<i>Lethrinus ornatus</i>	48	9	16.6
Oporu	Kapabatu	Oporu	<i>Atherinomorus endrachtensis</i>	13	17	4.8
Oporu ole	Oporu	Oporu ole	<i>Hypoatherina temminckii</i>	13	16	6.2

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Osiki	Osiki	Osiki	<i>Hyporhamphus affinis/archipelagicus</i>	13	6	15.4
Pogo	Pogo	Pogo	<i>Rhinecanthus rectangulus</i>	100	6	13.8
Pogo biru	Pogo biru	Pogo biru	<i>Sufflamen chrysopterus</i>	100	8	13.8
Pogo biru	Pogo biru	Pogo biru	<i>Melichthys vidua</i>	106	5	17.8
Pogo buri	Pogo buri	Pogo buri	<i>Balistoides conspicillum</i>	101	2	21.7
Pogo kombose	Pogo kombose	Pogo kombose	<i>Sufflamen fraenatus</i>	100	10	17.0
Pogo meha	Pogo meha	Pogo meha	<i>Balistapus undulatus</i>	100	1	13.8
Pogo mohute mata kinda	Pogo mohute mata kinda	Pogo mohute mata kinda	<i>Rhinecanthus aculeatus</i>	100	5	13.8
Pogo olo biru	Pogo olo biru	Pogo olo biru	<i>Melichthys niger</i>	100	4	21.7
Pogo olo ijo	Pogo olo ijo	Pogo olo ijo	<i>Odonus niger</i>	101	3	21.7
Pogo tanda biru	Pogo tanda biru	Pogo tanda biru	<i>Rhinecanthus verrucosus</i>	101	6	10.9
Pu.u - Pu.u			<i>Ostracion meleagris</i>	103	4	11.7
Pulen- pule	Pulen -pule	Pulen -pule	<i>Stethojulis strigiventer</i>	77	11	7.5
Pulen-pule			<i>Leptoscarus vaigiensis (ip: female)</i>	80	4	14.7
Punto-punto	Punto-punto	Punto-punto	<i>Suezichthy soelae</i>	77	12	5.4
Punto-punto	Punto-punto	Puto punto	<i>Calotomus spinidens (unicolour)</i>	80	3	7.0
Puu-puu			<i>Rhynchostracion nasus</i>	103	6	15.0
Randa moruta	Randa moruta	Randa moruta	<i>Gnathodentex aurolineatus</i>	48	1	13.8
Randa moruta	Randa moruta	Randa moruta	<i>Scolopsis auratus</i>	51	8	10.0
Roraga/kotoha	Roraga/kotoha	Roraga/kotoha	<i>Lutjanus monostigma</i>	43	12	24.1
Rumah-rumah			<i>Rastrelliger kanagurta</i>	97	11	17.5
Ruma-ruma	Ruma-ruma	Ruma-ruma	<i>Selar crumenthalmops</i>	39	8	25.5
Ruma-ruma	Ruma-ruma	Ruma-ruma	<i>Selaroides leptolepis</i>	39	9	9.9
Ruma-ruma	Ruma-ruma	Ruma-ruma	<i>Decapterus russelli</i>	38	12	16.1
Ru'u	Ru'u	Ru'u	<i>Lethrinus xanthocheilus</i>	48	10	29.9
Sala fau	Sala fau	Sala fau	<i>Lutjanus fulvus</i>	43	7	17.8
Salla	Kenta kuri-kuri	Salla	<i>Lutjanus carponotatus</i>	42	2	17.8
Salla	Salla	Salla	<i>Lutjanus decussatus</i>	42	3	13.8

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Salla	Roraga	Kuwoni	<i>Lutjanus kasmira</i>	42	6	13.9
Salla	Salla	Kuwoni	<i>Lutjanus quinquelineatus</i>	42	7	17.0
Salla	Kenta tumolla	Sala fau	<i>Lutjanus fulviflamma</i>	42	8	13.3
Salla	Salla	Salla	<i>Lutjanus vitta</i>	42	11	18.9
Salla	Salla	Salla	<i>Lutjanus lutjanus</i>	42	13	11.5
Sangkularu			<i>Pterois volitans</i>	19	6	17.0
Sangkularu meha			<i>Pterois antennata</i>	19	3	9.6
Saso	Saso	Saso	<i>Lethrinus olivaceus</i>	47	5	32.1
Simba	Simba	Simba	<i>Caranx melampygyus</i>	38	3	38.3
Simba	Simba	Simba	<i>Caranx papuensis</i>	38	4	35.7
Simba	Simba	Kea-kea meha	<i>Caranx sexfasciatus</i>	38	8	47.0
Simba biru	Simba biru	Simba biru	<i>Caranx lugubris</i>	38	2	38.3
Simba bungku	Simba bungku	Simba bungku	<i>Carangoides fulvoguttatus</i>	37	9	47.0
Simba lili bonua	Simba lili bonua	Simba lili bonua	<i>Alectis ciliaris</i>	37	1	57.2
Simba mohute	Simba mohute	Simba mohute	<i>Pseudocaranx dentex</i>	38	19	47.7
Simba moo	Simba moo	Simba moo	<i>Caranx ignobilis</i>	38	1	71.2
Simba one	Simba one	Simba one	<i>Alectis indicus</i>	37	2	62.3
Simba one nduru	Simba one nduru	Simba-simba bungku	<i>Carangoides ferdau</i>	37	8	36.6
Simba opa			<i>Carangoides talamparoides</i>	37	13	13.0
Simba simba			<i>Alepes sp.</i>	37	4	
Simba simba			<i>Carangoides chrysophrys</i>	37	6	25.5
Simba simba	Simba bnngha	Simba bnngha	<i>Carangoides othogrammus</i>	P125		29.5
Simba-simba bungku	Simba-simba bungku	Simba-simba bungku	<i>Atule mate</i>	37	5	14.5
Simba-simba lili bonua	Simba-simba lili bonua	Simba-simba lili bonua	<i>Carangoides caeruleopinnatus</i>	37	7	17.8
Sogo	Sogo	Sogo	<i>Amanses scopas</i>	101	9	9.6
Sogo olo	Sogo olo	Sogo olo	<i>Cantherhines pardalis</i>	102	3	11.7
Sogo pei	Sogo pei	Sogo pei	<i>Acreichthys tomentosus</i>	101	16	5.2
Sogo pei			<i>Aluterus scriptus</i>	102	2	43.5

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Sogo rondo	Sogo rondo	Sogo rondo	<i>Monacanthus chinensis</i>	102	7	17.0
Sogo rondo			<i>Paramonacanthus choirocephalus</i>	102	11	4.3
Sombu woku	Sombu woku	Sombu woku	<i>Sphyræna qenie</i>	69	13	63.9
Sori gonggo	Sori gonggo bahili	Sori gonggo	<i>Strongylura leiura</i>	13	11	40.0
Sori gonggo	Sori gonggo tooge	Sori gonggo	<i>Tylosurus crocodilius</i>	13	12	57.2
Sori olo	Sori olo	Sori olo	<i>Tylosurus gavialoides</i>	13	13	31.0
Sori urapi	Sori urapi	Sori urapi	<i>Platybelone platyura</i>	13	10	17.1
Sunu	Sunu	Sunu	<i>Plectropomus leopardus</i>	24	7	47.0
Sunu	Sunu	Sunu	<i>Plectropomus oligocanthus</i>	24	10	31.0
Sunu	Sunu	Sunu	<i>Variola louti</i>	24	11	30.4
Sunu biru mohute	Sunu biru mohute		<i>Plectropomus areolatus</i>	24	8	30.3
Sunu mera buri mohute	Sunu mera buri mohute	Sunu	<i>Plectropomus maculatus</i>	24	9	40.0
Tai pere or Tai repe	Tai pere or Tai repe	Tai pere or Tai repe	<i>Cheilinus chlorurus</i>	70	10	19.8
Talan-tala	Talan-tala	Talan-tala	<i>Grammatorcynus bicarinatus</i>	97	13	43.5
Talan-tala	Talan-tala	Talan-tala	<i>Grammatorcynus bilineatus</i>	97	14	40.0
Tandu dui	Tandu dui	Tandu dui	<i>Euleptorhamphus viridis</i>	13	8	18.0
Tanggili	Tanggili	Tanggili	<i>Halichoeres hortulanus (TP: male)</i>	75	3	20.0
Tanggili	Tanggili	Tanggili	<i>Halichoeres scapularis</i>	76	15	9.6
Tanggili			<i>Halichoeres zeylonicus</i>	P214		9.6
Tanggili ijo			<i>Thalassoma lunare</i>	78	4	11.7
Tanggili olo	Tanggili olo	Tanggili olo	<i>Anampses geographicus</i>	70	2	14.2
Tanggili olo	Tanggili olo	Tanggili olo	<i>Coris gaimardi</i>	74	13	17.8
Tanggili olo	Tanggili olo	Tanggili olo	<i>Halichoeres hortulanus (IP: female)</i>	75	3	5.0
Tanggili olo	Tanggili olo	Tanggili olo	<i>Pseudodax moluccanus</i>	79	7	13.8
Tanggili olo	Tanggili olo	Tanggili olo	<i>Stethojulis trilineata</i>	79	8	7.5
Tanggili olo ijo			<i>Halichoeres solorensis</i>	76	16	8.8
Tanggili one			<i>Halichoeres dussumieri</i>	75	8	7.1
Tanggili tanda iku			<i>Halichoeres trimaculatus (ip: female)</i>	75	6	12.6

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Tanggili tanda iku			<i>Halichoeres trimaculatus (tp: male)</i>	75	6	20.0
Tangiri	Tangiri	Tangiri	<i>Scomberoides lysan</i>	39	6	43.5
Taruda mohute	Taruda mohute	Taruda mohute	<i>Hemiramphus robustus</i>	13	5	14.4
Taruda nguhu	Taruda nguhu	Taruda nguhu	<i>Hemiramphus far</i>	13	4	19.8
Tendu tendu			<i>Centrogenys vaigiensis</i>	22	2	7.3
Tingkusa	Tingkusa	Tingkusa	<i>Upeneus vittatus</i>	52	13	11.0
Tingkusa	Tingkusa	Tingkusa buri	<i>Upeneus tragula</i>	52	14	13.8
Tingkusa	Tingkusa	Tingkusa	<i>Upeneus asymmetricus</i>	52	15	13.8
Tio	Tio	Tio	<i>Parupeneus bifasciatus</i>	52	3	15.8
Tio	Tio	Tio	<i>Parupeneus macronema</i>	51	17	17.8
Tio	Tio	Tio	<i>Parupeneus pleurostigma</i>	52	9	15.0
Tio bata	Tio bata	Tio bata	<i>Parupeneus barberinus</i>	51	16	25.5
Tio bata	Tio bata	Tio	<i>Parupeneus indicus</i>	52	6	17.8
Tio liku	Tio nguhu	Tio tombo	<i>Parupeneus multifasciatus</i>	52	8	13.8
Tio lumalo	Tio lumalo	Tio lumalo	<i>Mulloidichthys flavolineatus</i>	51	14	13.9
Tio lumalo	Tio lumalo	Tio lumalo	<i>Mulloidichthys vanicolensis</i>	51	15	15.7
Tio lumalo	Tio lumalo	Tio lumalo	<i>Upeneus moluccensis</i>	52	10	10.9
Tio lumalo	Tio lumalo	Tio lumalo	<i>Upeneus sundaicus</i>	52	12	10.5
Tio makuri	Tio makuri	Tio makuri	<i>Parupeneus cyclostomus</i>	52	1	21.7
Tio meha	Tio meha	Tio meha	<i>Parupeneus heptacanthus</i>	52	7	13.8
Tio tandai	Tio tandai	Tio tandai	<i>Parupeneus barberinoides</i>	52	2	13.8
Tofoula	Tofoula	Tofoula	<i>Bolbometopon muricatum (unicolour)</i>	80	1	41.1
Tokuku			<i>Chrysiptera unimaculata</i>	62	7	4.3
Tokuku biru			<i>Pomacentrus milleri</i>	66	8	4.0
Tonalu	Tonalu	Tonalu	<i>Macolor macularis</i>	43	16	25.5
Tonto (a)	Tonto (a)	Tonto	<i>Pentapodus trivittatus</i>	51	6	11.7
Tonto (b)	Tonto (b)	Tonto	<i>Scolopsis ciliatus</i>	51	9	9.2
Tonto (c)	Tonto (c)	Tondo buri	<i>Scolopsis lineatus</i>	51	10	10.9

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Tonto buri	Tonto buri	Tonto buri	<i>Scolopsis trilineatus</i>	51	13	9.6
Tonto mohute	Tonto mohute	Tonto mohute	<i>Pentapodus caninus</i>	51	2	11.0
Torokai	Torokai	Torokai	<i>Choerodon anchorago</i>	71	12	17.0
Tua butu	Tua butu	Tua butu	<i>Monotaxis grandoculis</i>	47	1	25.5
Tui-tui bungku	Tui-tui bungku	Tui-tui bungku	<i>Naso brachycentron</i>	93	4	36.4
Tui-tui iba (b)	Tui-tui iba (b)	Tui-tui iba	<i>Naso lopezi</i>	93	7	23.2
Tui-tui iba (c)	Tui-tui iba (c)	Tui-tui iba	<i>Naso thynnoides</i>	93	8	17.8
Tui-tui kangka	Tui-tui kangka	Tui-tui kangka	<i>Naso lituratus</i>	94	10	18.0
Tui-tui mohute	Tui-tui mohute	Tui-tui mohute	<i>Naso brevirostris</i>	94	11	25.5
Tui-tui sahi	Tui-tui sahi	Tui-tui sahi	<i>Naso unicornis</i>	94	13	27.0
Tularekke (b)	Tularekke (b)	Tularekke (b)	<i>Epinephelus merra</i>	23	10	14.2
Ulu fatu	Ulu fatu	Ulu fatu	<i>Gerres filamentosus</i>	50	14	12.0
Urapi	Urapi	Urapi	<i>Hyporhamphus quoyi</i>	13	7	15.8
Uru-uru	Uru-uru	Uru-uru	<i>Elegatis bipinnulata</i>	39	2	67.2
Usu-usu (kandole)	Usu-usu (kandole)	Kadafo kandole	<i>Lethrinus variegatus</i>	47	13	9.6
Vuna	Vuna	Vuna	<i>Platax teira</i>	54	6	25.5
Vuna biru			<i>Platax orbicularis</i>	54	7	21.7
Vuna mohute			<i>Platax batavianus</i>	54	4	21.7
Wakkoru	Wakkoru	Wakkoru	<i>Cheilinus fasciatus</i>	70	9	17.8

