

Chapter 10

Fish landings

10.1 General introduction

- ❑ Fish landing data is collected in two ways; family weight data and species length data.



Fishermen with a cast net



Weighing of catch

10.2 Equipment and logistics

- ❑ Family weight sampling
 - Spring-weighted balance
 - Data sheets
- ❑ Species length sampling
 - Marked measuring board.
 - Data slates

Site					
Date	Day 1				Day 2
Family groups	Trap	Gillnet	Line	Spear	Trap
Rabbitfish					
Scavengers					
Snappers					
Total landing					
Total fishermen					
Boats					

Fish family weight data entry sheet



Marked measuring board for length measurement

Site					
Date					
Tides					
Pic ID	Species	Method	Fishers	Lengths	Sub
	<i>L. vaigiensis</i>				
	<i>L. sanguineus</i>				
	<i>S. sutor</i>				
	Total landing				
	Total Fishermen				

Fish species length data entry slate

10.3 General procedure

❑ **Family**

Fish landed by individual or groups of fishers are weighed to the nearest half kilo and identified to family level. Invertebrates are identified by common names, such as octopus, sea cucumber, lobster, etc. When difficult to separate into family a “mixed” category is used. Gear used, catch, fish family, number of fishers, and boats are recorded. Random collections, of between 1 and 8 visits per landing site are made monthly.

❑ **Species**

Same standard method to above except that the standard length of fish landed by individual or groups of fishers are measured to the nearest centimeter. If possible every individual landed is measured. When catches are large, care is taken to measure every species and a representative of every size class (including small, medium, and large)

10.4 Data processing

- ❑ At the end of each day the data is entered from the sheets or slates into the database.
- ❑ The slates are not erased until necessary and after data entry has been checked, the data sheets are filed and kept.

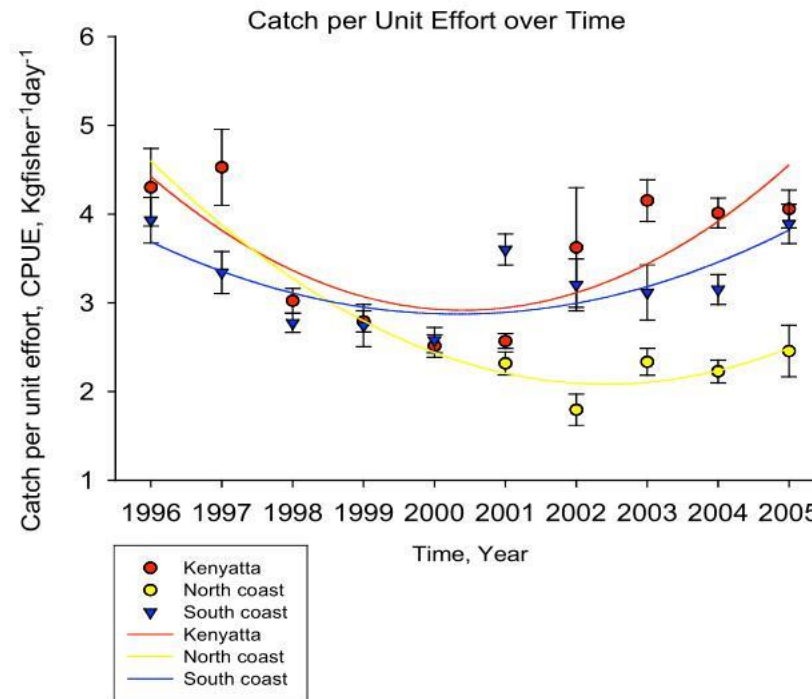
Landing Sites		Fish Catches		Fish Families	
Date	19-11-2005	Month	November	Total Fishermen	10
Method	Spear	Total			
ID	site 12	Site Name	Mtwapa	Total Boats	1
		Sector	MsaNorth		
		FamilyID	Family Name	Quantity	
		family 5	Octopus	110	

Fish landing weight data entry database

samaki-working2005.xls													
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Date	Year	Landing	Group	Fishgear	Family	Species	Comr	1	2	3	4	5
2	16/10/04	2004	Mwanyanz	1	Speargun	Anampses	Anampses caeruleopur	16					
3	16/10/04	2004	Mwanyanz	1	Speargun	Parupeneus	Parupeneus forsskali	14					
4	16/10/04	2004	Mwanyanz	1	Speargun	Epinephelus	Epinephelus macrospili	13					
5	16/10/04	2004	Mwanyanz	1	Speargun	Acanthurus	Acanthurus leucosternu	11					

Fish landed length data entry database

10.5 Results in Kenya



□ Further reading:

- McClanahan TR, Mangi SC (2004) Gear-based management of a tropical artisanal fishery based on species selectivity and capture size. Fisheries Management and Ecology 11:51-60.
- McClanahan TR, Mangi S (2001) The effect of a closed area and beach seine exclusion on coral reef fish catches. Fisheries Management and Ecology 8:107-121.