

Length-weight relationships for 15 species of reef fish caught in the lagoonal seine-net fishery at Rodrigues Island, Indian Ocean

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Shoals Rodrigues, Pointe Monier, Rodrigues

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Introduction

From 2002 to 2006 samples of fish commonly caught in the Rodrigues lagoonal seine-net fishery were both weighed and measured to establish length-weight relationships. Fish were weighed to the nearest 0.1 g where possible and total length (horizontal distance from tip of snout to rearmost fin rays of the spread caudal fin) was measured on a measuring board to the nearest 0.1 cm. For 15 species that had more than 15 individuals measured in this way, weight-length relationships were calculated according to:

$$W = a \times L^b$$

where W is weight (g) and L is length (cm).

Sample sizes ranged from 17 to 519. For one species, the Bluespot mullet (*Moolgarda seheli*), the relationship had a relatively poor fit and should be treated with caution. The data utilised to construct the weight-length relationships are summarised in Table 1.

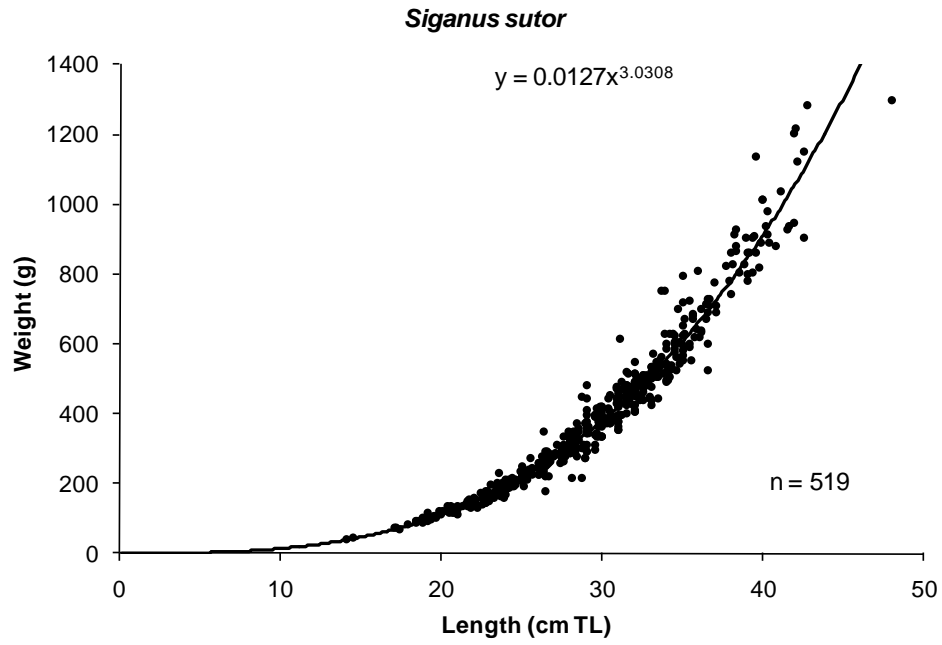
Table 1. Summary of weight-length relationships calculated for 15 reef fish species relatively commonly caught in the Rodrigues Island lagoonal seine-net fishery. The number of fishes measured, the range of lengths obtained, calculated intercept and slope for the power relationship, and coefficient of determination (R^2) for the weight-length regression are shown for each species.

Species	Sample size n	Range of TL (cm)		a	b	Regression R^2
		Min	Max			
<i>Siganus sutor</i>	519	14.1	48.0	0.0127	3.0308	0.9762
<i>Gerres longirostris</i>	226	20.5	41.0	0.0075	3.1338	0.9401
<i>Lethrinus nebulosus</i>	189	14.5	59.0	0.0193	2.8897	0.9779
<i>Caranx melampygus</i>	167	18.0	57.7	0.0096	3.0598	0.9867
<i>Mulloidichthys flavolineatus</i>	70	24.5	36.7	0.0056	3.1758	0.9492
<i>Mulloidichthys vanicolensis</i>	66	15.5	35.0	0.0062	3.1590	0.9388
<i>Epinephelus merra</i>	50	11.5	24.0	0.0334	2.7333	0.9636
<i>Siganus argenteus</i>	40	17.7	35.5	0.0120	3.0208	0.9863
<i>Acanthurus triostegus</i>	33	12.5	23.0	0.0223	3.1054	0.9386
<i>Naso unicornis</i>	28	22.5	56.0	0.0321	2.8220	0.9144
<i>Chlorurus sordidus</i>	22	18.0	34.0	0.0165	3.0635	0.8913
<i>Lethrinus harak</i>	22	25.1	42.0	0.0163	2.9673	0.9555
<i>Gnathanodon speciosus</i>	21	17.5	34.1	0.0072	3.1805	0.9824
<i>Rhinecanthus aculeatus</i>	17	14.0	27.0	0.1559	2.4059	0.9559
<i>Moolgarda seheli</i>	53	32.3	59.0	0.8158	1.8494	0.4290

Siganus sutor (Valenciennes, 1835)

Cordonnier; Shoemaker spinefoot

Family: Siganidae (Rabbitfishes)



Siganus sutor (n=519) Total length (cm) Weight (g)

Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
1	17.9	81.1	51	24.0	186.5	101	27.5	272.0
2	18.8	104.1	52	24.0	193.0	102	27.7	279.4
3	19.1	91.2	53	24.0	182.0	103	27.7	279.4
4	19.5	107.9	54	24.2	186.8	104	28.0	320.0
5	20.0	110.9	55	24.4	201.1	105	28.0	288.0
6	20.1	119.2	56	24.4	190.7	106	28.0	331.6
7	20.5	118.2	57	24.5	193.0	107	28.0	337.2
8	20.5	120.4	58	24.5	193.8	108	28.0	323.5
9	20.7	125.9	59	24.5	193.0	109	28.0	322.2
10	20.7	115.8	60	24.6	212.5	110	28.0	320.0
11	20.8	114.4	61	24.6	196.2	111	28.0	288.0
12	20.8	131.4	62	24.9	233.6	112	28.0	331.6
13	21.0	130.0	63	25.0	222.0	113	28.0	337.2
14	21.0	111.1	64	25.0	215.0	114	28.0	323.5
15	21.0	125.3	65	25.0	219.0	115	28.2	321.5
16	21.0	130.0	66	25.0	235.0	116	28.2	321.5
17	21.3	136.2	67	25.0	246.8	117	28.3	290.0
18	21.5	138.3	68	25.0	247.6	118	28.4	278.1
19	21.6	150.5	69	25.0	222.0	119	28.4	303.0
20	21.6	134.1	70	25.0	215.0	120	28.5	350.3
21	21.7	145.7	71	25.0	219.0	121	28.7	300.5
22	21.7	133.6	72	25.0	235.0	122	28.9	273.9
23	21.8	130.3	73	25.4	234.6	123	28.9	374.6
24	22.1	153.4	74	25.5	235.0	124	28.9	273.9
25	22.1	142.1	75	25.5	236.5	125	29.0	294.0
26	22.4	172.2	76	25.5	235.0	126	29.0	342.0
27	22.5	140.5	77	25.5	236.5	127	29.0	346.8
28	22.5	170.7	78	25.6	243.0	128	29.0	359.3
29	22.6	159.8	79	25.6	244.1	129	29.0	310.9
30	22.6	159.7	80	25.6	226.1	130	29.0	481.1
31	22.6	159.8	81	26.0	225.0	131	29.0	442.4
32	22.7	180.3	82	26.0	259.0	132	29.0	377.5
33	22.7	144.2	83	26.0	251.0	133	29.0	351.4
34	22.9	169.8	84	26.0	225.0	134	29.0	294.0
35	22.9	171.2	85	26.0	259.0	135	29.0	342.0
36	22.9	150.4	86	26.0	251.0	136	29.0	346.8
37	23.2	157.3	87	26.3	253.7	137	29.1	343.3
38	23.5	167.0	88	26.4	293.3	138	29.5	393.2
39	23.5	171.0	89	26.5	271.0	139	29.5	394.9
40	23.5	178.6	90	26.5	264.6	140	29.5	339.8
41	23.5	167.0	91	26.6	265.4	141	29.5	393.2
42	23.5	171.0	92	26.6	219.1	142	29.5	394.9
43	23.7	165.8	93	26.6	260.5	143	29.7	336.3
44	23.8	189.9	94	26.6	286.0	144	30.0	368.0
45	23.9	191.0	95	26.7	262.4	145	30.0	419.0
46	23.9	191.0	96	27.1	283.3	146	30.0	333.8
47	24.0	193.0	97	27.4	261.0	147	30.0	372.8
48	24.0	182.0	98	27.4	261.0	148	30.0	382.8
49	24.0	212.8	99	27.5	272.0	149	30.0	332.7
50	24.0	168.1	100	27.5	302.5	150	30.0	379.4

Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
151	30.0	368.0	201	32.4	452.2	251	39.0	862.4
152	30.0	419.0	202	32.4	489.7	252	39.0	783.0
153	30.0	333.8	203	32.4	496.1	253	39.3	803.5
154	30.3	381.7	204	32.5	508.3	254	39.7	818.5
155	30.3	372.7	205	32.5	440.0	255	40.2	936.5
156	30.3	381.7	206	32.5	490.6	256	41.6	936.0
157	30.4	417.5	207	32.5	471.7	257	25.5	238.4
158	30.5	372.5	208	32.7	512.5	258	27.1	282.5
159	30.5	389.5	209	32.8	481.6	259	24.3	195.8
160	30.5	372.5	210	32.8	481.5	260	40.8	881.1
161	30.6	379.6	211	32.8	484.3	261	23.5	202.2
162	30.8	392.4	212	32.9	448.1	262	27.9	313.0
163	30.8	392.4	213	33.0	440.9	263	29.5	296.3
164	30.9	442.9	214	33.0	476.7	264	23.8	199.7
165	30.9	427.6	215	33.0	440.9	265	26.1	244.9
166	31.0	379.0	216	33.1	519.0	266	22.2	131.8
167	31.0	426.6	217	33.1	570.3	267	29.6	336.6
168	31.0	432.0	218	33.2	517.4	268	26.5	268.0
169	31.0	353.0	219	33.3	504.0	269	28.4	334.1
170	31.0	354.3	220	33.4	524.0	270	26.0	245.8
171	31.0	397.4	221	33.5	507.0	271	23.9	192.9
172	31.0	418.5	222	33.5	507.0	272	28.7	217.3
173	31.0	456.1	223	33.6	553.0	273	20.5	131.6
174	31.0	417.8	224	33.7	562.5	274	28.1	218.0
175	31.0	379.0	225	33.9	630.6	275	34.6	524.4
176	31.0	426.6	226	34.0	496.8	276	25.1	192.5
177	31.0	432.0	227	34.0	491.0	277	26.3	234.6
178	31.0	353.0	228	34.0	545.6	278	26.5	264.4
179	31.0	354.3	229	34.0	521.0	279	25.0	207.0
180	31.1	465.4	230	34.1	495.8	280	26.5	253.5
181	31.2	397.1	231	34.2	630.0	281	25.6	241.2
182	31.3	472.0	232	34.2	523.8	282	36.4	715.5
183	31.4	428.6	233	34.3	540.5	283	23.0	157.6
184	31.4	447.1	234	34.5	575.3	284	24.0	204.0
185	31.5	448.3	235	34.6	605.0	285	35.5	551.4
186	31.5	425.8	236	34.6	562.5	286	27.1	289.5
187	31.5	482.5	237	34.8	602.8	287	31.8	477.6
188	31.5	461.4	238	34.8	543.0	288	22.7	146.4
189	31.6	450.0	239	35.0	583.6	289	22.7	143.8
190	31.9	424.2	240	35.0	567.0	290	23.7	166.7
191	32.0	404.0	241	35.1	627.4	291	21.9	134.2
192	32.0	462.0	242	35.4	592.5	292	26.3	273.9
193	32.0	424.2	243	35.8	643.3	293	42.5	906.4
194	32.0	517.0	244	36.0	618.0	294	41.9	945.2
195	32.0	469.3	245	36.1	638.9	295	27.5	296.5
196	32.0	404.0	246	36.1	638.9	296	23.0	198.3
197	32.1	450.5	247	36.5	692.1	297	28.5	325.9
198	32.1	505.5	248	36.5	727.3	298	34.0	539.1
199	32.3	489.0	249	37.1	691.0	299	38.0	744.5
200	32.3	480.0	250	38.5	802.3	300	36.4	671.5

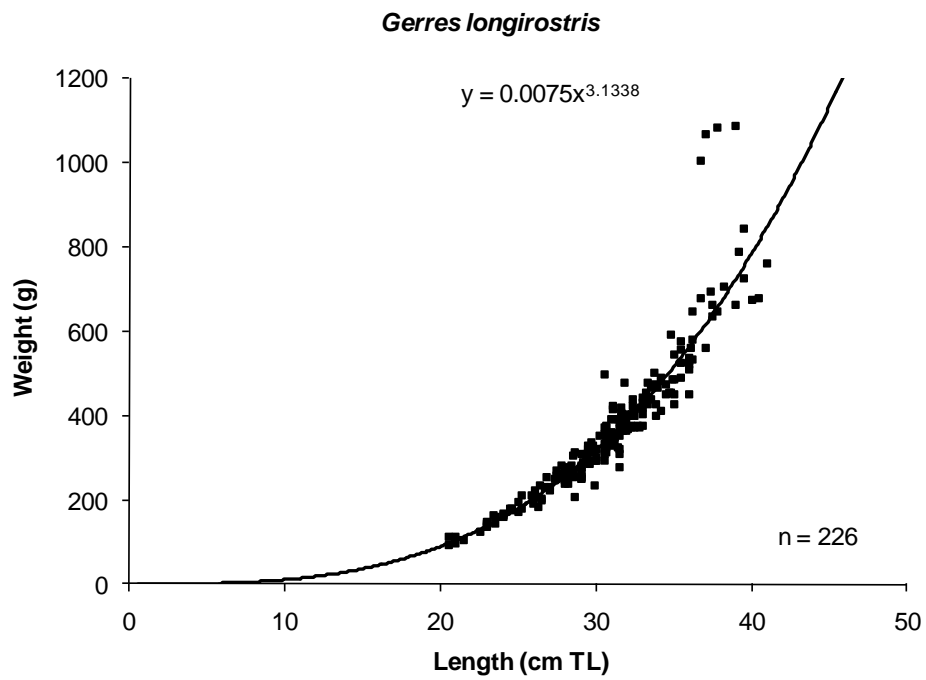
Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
301	26.4	220.7	351	41.9	1203.3	401	34.7	698.3
302	23.9	158.6	352	34.0	583.8	402	31.5	520.4
303	23.5	170.3	353	32.5	489.2	403	20.6	126.1
304	27.0	283.3	354	28.5	323.3	404	21.9	145.0
305	22.0	160.8	355	30.5	451.2	405	21.7	152.4
306	28.0	314.0	356	30.0	398.0	406	19.8	121.6
307	28.2	351.0	357	34.5	603.5	407	21.7	142.5
308	26.6	274.9	358	37.0	774.7	408	23.9	192.7
309	26.3	347.4	359	38.0	863.7	409	23.2	174.6
310	40.3	912.8	360	34.5	586.4	410	22.6	169.9
311	36.5	522.8	361	32.0	491.4	411	19.3	96.3
312	38.8	829.5	362	31.5	480.2	412	20.4	134.7
313	30.2	386.8	363	30.0	371.0	413	21.7	143.1
314	27.6	333.7	364	30.5	405.6	414	24.2	211.2
315	28.3	313.1	365	28.7	449.2	415	19.9	115.6
316	27.8	303.0	366	27.0	279.2	416	23.6	189.8
317	26.4	254.8	367	31.4	469.2	417	22.8	179.2
318	26.4	280.0	368	30.4	443.2	418	17.1	73.6
319	26.2	278.8	369	25.4	241.2	419	19.5	107.2
320	35.0	650.7	370	39.5	860.0	420	19.6	101.5
321	33.0	533.4	371	39.1	862.2	421	18.4	92.0
322	32.5	460.4	372	42.0	1218.4	422	20.9	122.9
323	30.3	376.4	373	38.1	828.1	423	20.9	130.8
324	31.6	452.7	374	38.3	867.5	424	18.4	88.9
325	29.7	378.2	375	40.4	890.0	425	17.2	72.5
326	31.0	444.2	376	39.3	901.8	426	33.5	526.9
327	31.5	431.9	377	34.5	598.6	427	32.2	482.3
328	28.5	357.9	378	38.3	880.0	428	31.7	476.1
329	27.5	303.8	379	36.5	601.9	429	32.0	549.4
330	28.8	312.4	380	35.0	720.0	430	33.0	520.1
331	28.3	330.9	381	40.3	980.0	431	36.7	729.0
332	27.2	309.8	382	31.7	442.6	432	31.8	468.9
333	23.3	191.5	383	31.5	446.1	433	35.6	672.1
334	27.9	307.8	384	30.0	403.9	434	35.6	682.8
335	26.6	262.9	385	29.6	413.9	435	32.0	516.7
336	26.4	254.9	386	29.0	359.8	436	32.3	441.3
337	25.4	228.9	387	30.9	470.3	437	34.2	506.8
338	24.3	199.8	388	33.8	517.0	438	32.0	411.0
339	24.0	181.2	389	29.0	395.6	439	18.5	94.5
340	35.0	594.2	390	21.0	133.2	440	25.0	214.5
341	35.0	622.5	391	36.5	715.2	441	26.8	282.5
342	25.5	272.1	392	34.0	602.1	442	32.5	509.5
343	31.0	449.2	393	38.2	911.2	443	39.5	1136.5
344	48.0	1298.6	394	36.1	700.8	444	39.8	888.0
345	33.3	550.0	395	37.7	824.2	445	31.8	459.0
346	37.1	709.7	396	31.1	616.0	446	30.6	378.8
347	29.8	419.7	397	30.9	475.0	447	35.7	621.3
348	41.1	1036.1	398	38.9	903.0	448	27.9	313.0
349	39.9	1012.9	399	33.7	754.5	449	32.9	442.9
350	31.0	448.3	400	35.0	793.2	450	29.1	361.6

Fish #	Length	Weight	Fish #	Length	Weight
451	26.3	259.4	501	42.7	1283.4
452	18.4	94.9	502	34.5	624.5
453	35.4	601.6	503	29.6	343.0
454	39.4	909.9	504	21.5	138.8
455	22.5	158.4	505	33.6	534.7
456	36.1	632.0	506	37.9	781.1
457	27.6	301.5	507	40.0	1014.0
458	27.4	288.0	508	28.4	372.3
459	23.2	171.5	509	29.7	362.7
460	19.1	117.8	510	31.6	515.3
461	33.9	750.0	511	26.5	290.0
462	35.4	725.0	512	20.6	136.8
463	32.4	490.0	513	17.4	67.0
464	27.9	350.0	514	14.1	38.7
465	28.0	325.0	515	35.9	810.5
466	26.4	180.0	516	31.2	491.6
467	42.5	1149.6	517	27.0	283.0
468	34.4	629.4	518	24.4	214.0
469	28.2	307.9	519	20.9	130.8
470	23.5	189.4			
471	19.1	100.8			
472	14.5	47.4			
473	41.5	930.0			
474	33.0	501.4			
475	27.6	263.8			
476	23.7	179.4			
477	18.8	87.7			
478	30.0	361.0			
479	29.5	310.8			
480	33.0	422.7			
481	31.0	362.3			
482	31.5	401.9			
483	27.7	297.6			
484	27.6	309.4			
485	33.5	445.7			
486	39.0	801.0			
487	32.0	492.7			
488	35.0	553.0			
489	26.4	247.8			
490	28.0	288.4			
491	25.3	209.7			
492	29.9	366.6			
493	35.1	670.4			
494	42.1	1120.2			
495	33.0	535.9			
496	29.0	409.5			
497	35.6	684.5			
498	23.6	228.5			
499	26.8	262.8			
500	38.3	925.5			

Gerres longirostris (Lacepède, 1801)

Breton; Longtail silverbiddy

Family: Gerreidae (Mojarras)



Gerres longirostris (n=226) Total length (cm) Weight (g)

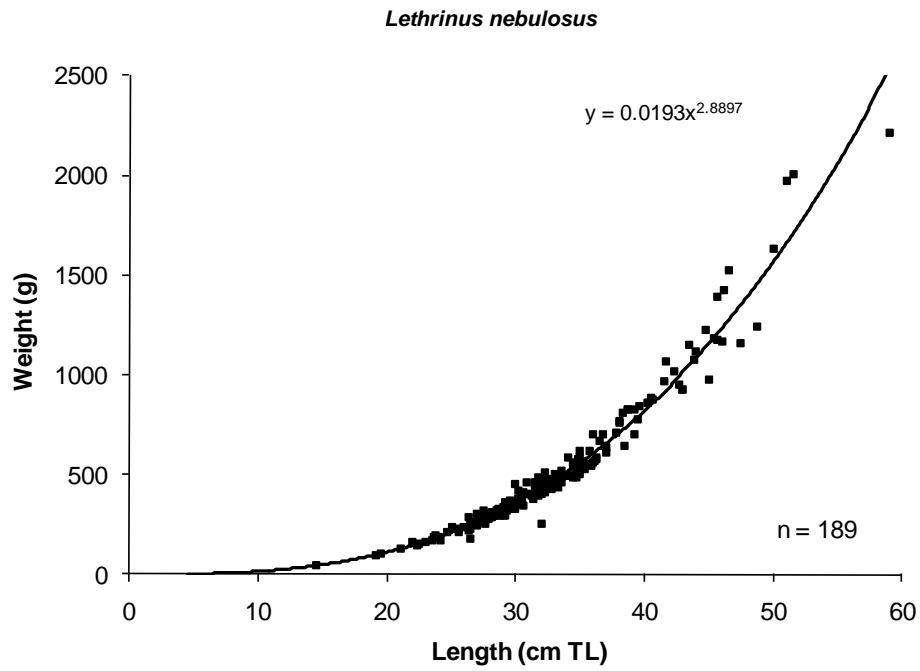
Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
1	20.5	114.0	51	28.6	206.1	101	31.5	366.5
2	20.5	90.9	52	29.0	279.2	102	31.5	352.5
3	21.0	95.4	53	29.0	254.6	103	31.6	406.4
4	21.0	97.2	54	29.0	262.9	104	31.6	420.8
5	21.0	111.1	55	29.0	278.7	105	31.7	364.9
6	21.5	102.8	56	29.0	270.2	106	31.8	478.2
7	22.5	123.8	57	29.0	255.0	107	31.9	369.8
8	23.0	135.4	58	29.1	307.0	108	31.9	365.1
9	23.0	149.4	59	29.2	290.7	109	31.9	387.7
10	23.0	138.8	60	29.4	309.0	110	32.0	371.8
11	23.5	160.0	61	29.4	297.9	111	32.0	401.2
12	23.5	160.0	62	29.5	321.0	112	32.0	368.5
13	23.5	143.1	63	29.5	294.7	113	32.3	402.4
14	24.0	168.6	64	29.5	287.9	114	32.3	376.5
15	24.6	175.0	65	29.5	329.3	115	32.4	423.4
16	24.6	179.2	66	29.7	323.7	116	32.4	438.8
17	25.0	194.5	67	29.7	338.2	117	32.5	370.8
18	25.2	211.2	68	29.8	321.2	118	32.5	370.8
19	25.2	180.7	69	29.9	315.9	119	32.7	376.0
20	25.8	211.3	70	29.9	293.8	120	33.0	429.2
21	26.0	192.0	71	29.9	234.8	121	33.0	403.4
22	26.0	192.0	72	30.0	301.5	122	33.0	418.4
23	26.0	208.4	73	30.0	291.9	123	33.2	455.5
24	26.2	206.4	74	30.2	353.4	124	33.3	477.0
25	26.3	183.8	75	30.5	373.7	125	33.4	439.1
26	26.5	200.9	76	30.5	373.7	126	33.5	439.7
27	26.7	228.9	77	30.5	320.8	127	33.7	473.0
28	26.8	252.7	78	30.5	333.0	128	34.0	467.2
29	27.0	222.9	79	30.5	355.5	129	34.2	482.6
30	27.3	249.4	80	30.5	308.9	130	34.7	455.8
31	27.5	256.4	81	30.5	498.6	131	34.9	486.3
32	27.5	256.4	82	30.6	326.5	132	35.0	485.5
33	27.5	248.4	83	30.7	373.1	133	35.5	490.3
34	27.8	283.0	84	30.7	344.0	134	36.0	449.7
35	28.0	248.0	85	30.7	376.6	135	36.7	1005.7
36	28.0	248.0	86	30.8	343.2	136	36.7	678.9
37	28.0	237.5	87	30.8	344.8	137	37.1	1070.0
38	28.0	276.3	88	31.0	361.1	138	37.8	1083.0
39	28.0	270.0	89	31.0	353.9	139	37.8	648.8
40	28.2	254.3	90	31.0	393.3	140	39.0	1089.4
41	28.2	239.4	91	31.0	359.6	141	33.9	400.9
42	28.3	274.1	92	31.1	348.9	142	35.0	449.5
43	28.4	280.0	93	31.1	421.2	143	31.4	324.2
44	28.5	258.0	94	31.1	415.5	144	30.5	293.4
45	28.5	258.0	95	31.2	347.5	145	34.2	488.6
46	28.5	255.7	96	31.2	392.1	146	27.8	254.3
47	28.5	270.5	97	31.2	350.0	147	29.5	294.2
48	28.5	262.6	98	31.2	334.3	148	33.7	502.9
49	28.5	264.8	99	31.4	390.6	149	31.1	390.6
50	28.6	312.2	100	31.5	321.1	150	30.0	322.0

Fish #	Length	Weight	Fish #	Length	Weight
151	32.9	420.0	201	37.0	561.9
152	29.8	315.5	202	40.5	677.0
153	27.9	260.8	203	33.5	465.6
154	27.9	257.2	204	29.0	251.0
155	33.0	375.2	205	29.1	280.0
156	31.5	276.1	206	32.2	370.4
157	30.5	316.6	207	35.5	557.8
158	29.6	284.0	208	27.0	228.8
159	31.5	307.6	209	35.0	426.8
160	41.0	761.5	210	34.8	453.1
161	36.0	508.9	211	36.2	581.1
162	30.6	310.9	212	31.0	330.0
163	36.0	535.5	213	33.0	442.6
164	34.5	450.4	214	36.0	522.3
165	33.9	426.9	215	30.0	293.1
166	34.5	473.3	216	38.2	705.0
167	32.8	372.6	217	37.5	661.0
168	34.2	409.7	218	37.4	694.2
169	29.0	250.3	219	39.5	843.8
170	39.5	726.6	220	39.2	790.0
171	32.5	398.3	221	28.0	247.7
172	26.5	199.9	222	25.0	171.6
173	35.0	545.2	223	24.5	180.6
174	23.0	141.7	224	26.0	200.3
175	24.0	158.3	225	24.0	168.9
176	24.0	164.8	226	27.5	235.1
177	33.3	427.8			
178	36.1	561.6			
179	36.2	646.3			
180	34.8	591.7			
181	35.4	524.2			
182	35.5	575.6			
183	32.5	416.2			
184	36.0	530.8			
185	32.5	416.4			
186	26.4	232.9			
187	29.8	328.2			
188	27.5	268.3			
189	26.1	222.6			
190	28.5	304.5			
191	26.2	206.3			
192	23.4	163.4			
193	36.2	531.6			
194	31.5	385.0			
195	32.0	401.0			
196	29.6	322.0			
197	31.7	404.3			
198	40.0	674.4			
199	39.0	664.0			
200	37.5	634.3			

Lethrinus nebulosus (Forsskål, 1775)

Capitaine; Spangled emperor

Family: Lethrinidae (Emperors)



Lethrinus nebulosus (n=189) Total length (cm) Weight (g)

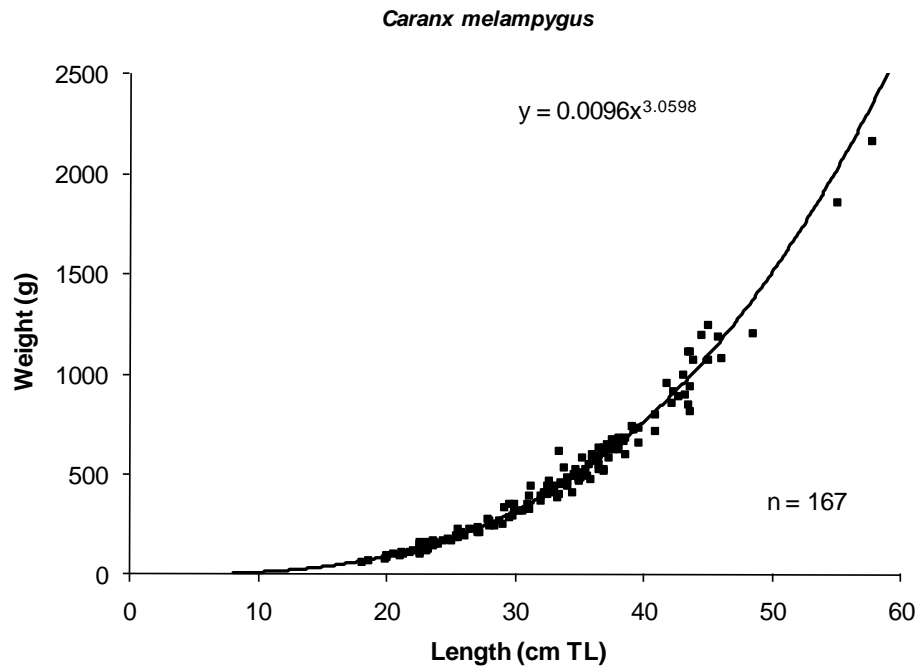
Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
1	14.5	45.0	51	29.5	355.2	101	29.5	332.0
2	19.1	96.1	52	27.6	270.1	102	29.0	309.6
3	19.5	103.5	53	26.8	264.3	103	34.4	543.3
4	21.0	130.3	54	26.5	258.9	104	31.3	381.8
5	22.0	160.1	55	26.4	225.8	105	32.0	416.9
6	22.4	145.7	56	28.0	294.0	106	30.9	458.8
7	23.5	172.8	57	25.1	236.3	107	25.5	211.9
8	23.6	185.9	58	27.9	275.9	108	29.3	315.9
9	23.8	192.1	59	28.2	297.3	109	31.2	393.8
10	24.0	183.4	60	30.4	354.9	110	29.0	298.5
11	24.1	172.7	61	28.5	316.2	111	30.0	450.8
12	26.0	235.1	62	26.3	218.3	112	32.1	426.0
13	27.0	300.7	63	29.1	340.6	113	27.0	247.7
14	27.5	317.7	64	28.8	298.7	114	29.5	326.3
15	27.6	252.4	65	29.0	335.6	115	26.3	289.2
16	28.5	292.0	66	27.0	262.7	116	33.5	502.5
17	28.7	320.0	67	28.1	285.4	117	30.2	370.3
18	29.0	318.1	68	29.2	296.1	118	29.2	361.1
19	29.5	370.4	69	30.0	350.4	119	31.5	456.0
20	30.0	364.6	70	32.3	438.8	120	35.4	526.9
21	30.2	380.9	71	29.4	342.6	121	36.3	574.4
22	30.6	408.5	72	45.7	1179.2	122	36.2	582.1
23	30.6	348.4	73	45.6	1389.5	123	35.0	587.5
24	31.6	464.6	74	51.0	1968.6	124	35.0	554.5
25	31.8	391.5	75	46.5	1525.2	125	44.7	1223.1
26	32.0	405.8	76	30.2	378.8	126	33.3	434.5
27	32.8	436.4	77	32.8	428.3	127	34.2	494.8
28	33.0	467.5	78	34.8	573.6	128	33.5	460.4
29	33.0	500.0	79	27.5	305.9	129	30.3	367.0
30	33.5	517.3	80	30.4	397.8	130	35.0	525.6
31	34.0	584.3	81	38.0	763.1	131	31.8	417.9
32	34.0	496.7	82	28.1	312.0	132	33.5	484.9
33	34.5	555.3	83	43.5	1152.0	133	30.2	422.6
34	34.5	561.4	84	32.1	427.6	134	28.5	321.5
35	35.7	618.7	85	38.0	766.1	135	36.9	647.8
36	35.8	542.3	86	24.6	210.0	136	30.9	403.0
37	36.0	703.8	87	27.2	267.4	137	35.0	617.8
38	36.1	565.3	88	32.8	439.5	138	34.7	489.6
39	37.8	708.7	89	27.6	288.3	139	34.4	482.5
40	38.3	811.0	90	28.3	294.2	140	32.7	463.3
41	38.4	644.0	91	30.2	370.9	141	39.6	844.4
42	41.7	1067.5	92	32.0	471.6	142	23.0	157.9
43	42.3	1021.0	93	39.2	827.4	143	25.5	228.0
44	45.0	979.8	94	46.1	1421.2	144	22.5	155.2
45	47.5	1155.8	95	27.8	286.3	145	36.7	704.9
46	47.5	1155.8	96	37.0	636.2	146	33.1	481.5
47	59.0	2210.7	97	28.0	289.4	147	32.9	443.5
48	59.0	2210.7	98	30.5	386.7	148	31.9	432.9
49	32.6	457.9	99	33.0	460.0	149	36.5	665.4
50	29.4	344.4	100	30.0	330.0	150	31.2	400.2

Fish #	Length	Weight
151	40.2	857.0
152	42.9	925.9
153	38.7	824.6
154	40.2	857.0
155	42.9	925.9
156	38.7	824.6
157	48.7	1240.0
158	43.9	1075.9
159	44.0	1115.0
160	45.4	1186.4
161	35.0	502.8
162	36.0	559.0
163	46.0	1167.2
164	39.5	777.0
165	35.5	552.8
166	39.2	702.1
167	34.7	526.2
168	31.5	426.9
169	31.7	410.6
170	34.3	496.0
171	32.2	414.4
172	50.0	1635.3
173	32.5	441.9
174	40.6	879.5
175	27.5	263.1
176	27.7	306.7
177	32.0	251.6
178	40.5	881.6
179	37.0	610.6
180	42.7	953.3
181	51.6	2005.9
182	41.5	970.1
183	31.5	458.8
184	31.8	487.6
185	32.2	514.6
186	28.7	325.0
187	32.5	480.0
188	32.4	480.0
189	26.4	175.0

Caranx melampygus Cuvier, 1833

Carangue; Bluefin trevally

Family: Carangidae (Jacks and pompanos)



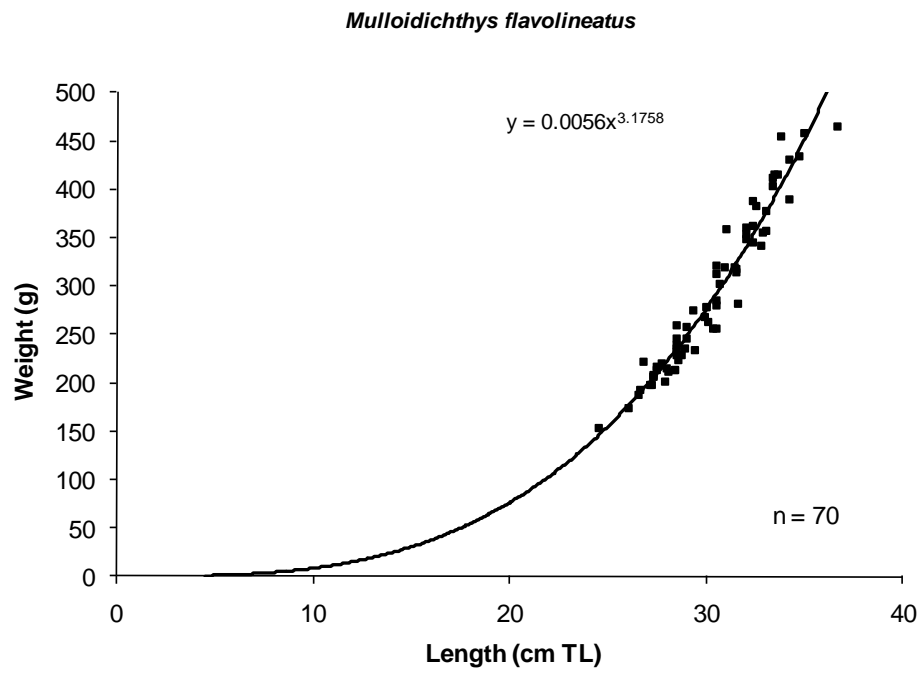
Caranx melampygus (n=167) Total length (cm) Weight (g)

Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
1	18.0	66.2	51	32.6	464.5	101	36.8	529.8
2	18.5	67.5	52	32.7	413.4	102	39.5	661.1
3	19.8	77.3	53	33.0	436.5	103	42.6	887.9
4	19.9	84.1	54	33.0	436.5	104	43.4	847.4
5	20.0	91.2	55	33.2	385.0	105	43.1	895.8
6	20.5	99.6	56	33.7	453.9	106	42.1	857.5
7	21.0	97.6	57	33.8	530.7	107	42.3	910.7
8	21.1	111.7	58	34.0	487.5	108	33.3	403.8
9	21.2	101.8	59	34.0	470.1	109	36.5	525.9
10	21.7	109.6	60	34.0	448.2	110	35.5	490.0
11	21.7	109.4	61	34.0	448.8	111	35.8	474.8
12	22.0	121.4	62	34.4	409.0	112	38.0	657.8
13	22.0	117.6	63	34.6	522.5	113	43.5	813.8
14	22.5	145.1	64	34.7	493.4	114	55.0	1856.8
15	22.5	126.3	65	34.9	464.6	115	31.0	323.2
16	22.5	117.5	66	35.0	485.3	116	27.2	212.9
17	22.5	111.1	67	35.0	485.3	117	33.4	617.9
18	22.5	101.5	68	35.0	510.3	118	28.0	266.7
19	22.7	131.1	69	35.2	583.7	119	29.9	315.6
20	23.0	161.0	70	36.5	629.9	120	45.8	1186.5
21	23.0	122.6	71	37.1	651.2	121	43.8	1073.1
22	23.2	142.1	72	37.2	625.4	122	41.7	959.8
23	23.2	124.6	73	37.5	636.1	123	36.3	589.1
24	23.5	162.2	74	37.5	672.7	124	43.6	1116.8
25	23.6	164.6	75	38.0	685.9	125	44.5	1193.1
26	23.7	155.7	76	39.0	744.3	126	37.2	584.4
27	23.9	155.4	77	40.8	796.7	127	35.7	553.6
28	25.0	173.8	78	45.0	1068.5	128	36.4	546.8
29	25.0	169.4	79	35.4	528.6	129	43.4	1109.4
30	25.3	186.4	80	33.5	456.4	130	39.2	722.1
31	25.4	196.2	81	33.0	439.8	131	57.7	2166.9
32	25.5	224.3	82	24.3	169.2	132	29.9	354.8
33	25.5	194.8	83	32.0	392.8	133	22.8	142.8
34	27.0	221.2	84	36.9	616.7	134	22.5	154.3
35	27.0	210.1	85	38.5	602.1	135	33.0	427.8
36	27.8	280.0	86	40.9	713.6	136	36.7	611.9
37	27.9	246.9	87	38.0	624.4	137	22.5	161.1
38	27.9	246.9	88	37.8	629.6	138	20.0	98.8
39	28.3	246.7	89	36.8	519.5	139	36.7	612.2
40	28.7	268.5	90	34.9	487.4	140	32.3	412.9
41	29.1	332.9	91	34.9	472.6	141	30.9	350.1
42	29.5	355.0	92	38.0	662.5	142	25.7	207.5
43	29.7	291.9	93	39.5	731.1	143	23.7	162.9
44	30.2	322.4	94	38.5	687.0	144	27.0	239.5
45	31.0	393.6	95	37.5	649.5	145	26.4	228.8
46	31.2	440.1	96	34.0	445.1	146	24.7	174.5
47	32.0	370.3	97	30.5	315.7	147	27.0	225.5
48	32.2	407.2	98	34.5	503.3	148	23.5	168.4
49	32.5	441.8	99	27.0	225.7	149	23.5	168.1
50	32.5	445.2	100	26.0	194.1	150	38.4	670.0

Mulloidichthys flavolineatus (Lacepède, 1801)

Rouget; Yellowstripe goatfish

Family: Mullidae (Goatfishes)



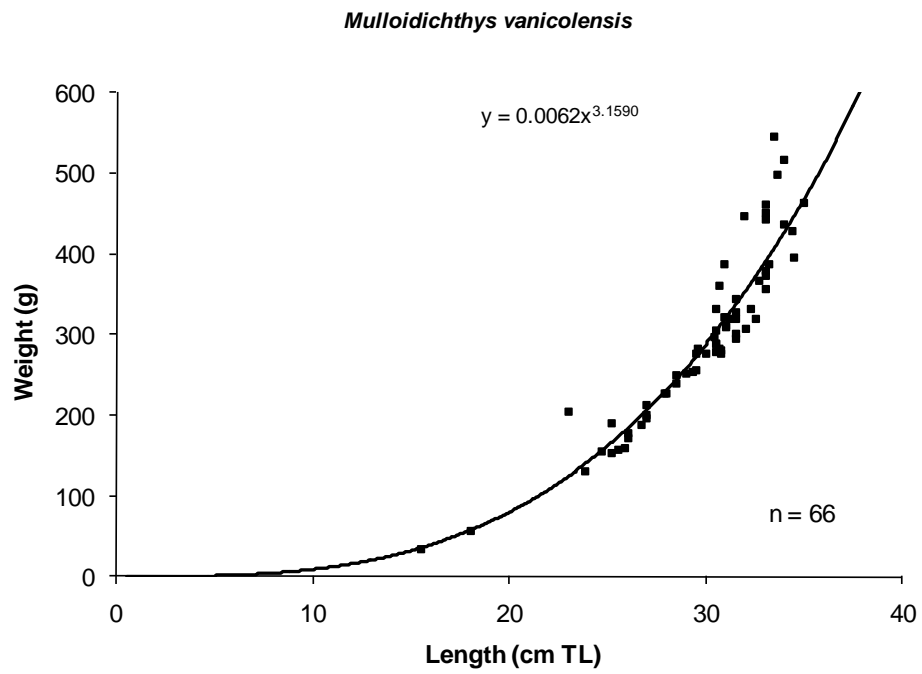
Mulloidichthys flavolineatus (n=70) Total length (cm) Weight (g)

Fish #	Length	Weight	Fish #	Length	Weight
1	24.5	153.3	51	31.5	314.6
2	26.5	187.8	52	30.5	312.0
3	26.6	193.0	53	28.5	245.0
4	27.3	207.0	54	28.5	228.3
5	27.5	213.8	55	28.5	259.9
6	27.9	202.0	56	27.7	219.8
7	28.0	214.3	57	29.0	257.0
8	28.4	213.6	58	27.1	198.1
9	28.5	238.1	59	27.2	198.4
10	29.0	245.5	60	27.3	208.9
11	29.4	233.2	61	27.3	205.8
12	30.5	285.4	62	26.0	173.7
13	30.5	321.6	63	27.5	216.4
14	30.5	255.9	64	28.4	214.0
15	30.9	319.7	65	31.0	359.0
16	31.4	319.0	66	30.7	302.4
17	31.6	281.0	67	28.5	235.5
18	32.0	348.4	68	30.5	279.4
19	32.4	345.7	69	32.5	382.1
20	32.4	387.9	70	35.0	458.7
21	32.4	362.5			
22	32.8	341.9			
23	33.0	377.1			
24	33.4	411.2			
25	33.5	415.8			
26	33.6	414.6			
27	33.6	415.9			
28	34.2	430.3			
29	34.2	389.3			
30	34.7	433.5			
31	32.0	360.0			
32	30.1	263.2			
33	28.1	212.1			
34	30.3	255.6			
35	36.7	464.2			
36	26.8	221.4			
37	29.9	268.7			
38	29.3	275.7			
39	32.9	354.6			
40	32.0	354.1			
41	33.4	403.7			
42	33.8	454.6			
43	31.5	317.2			
44	28.7	229.0			
45	28.9	236.2			
46	28.5	232.4			
47	28.6	223.3			
48	30.0	278.6			
49	33.0	356.2			
50	30.0	278.3			

Mulloidichthys vanicolensis (Valenciennes, 1831)

Rouget; Yellowfin goatfish

Family: Mullidae (Goatfishes)



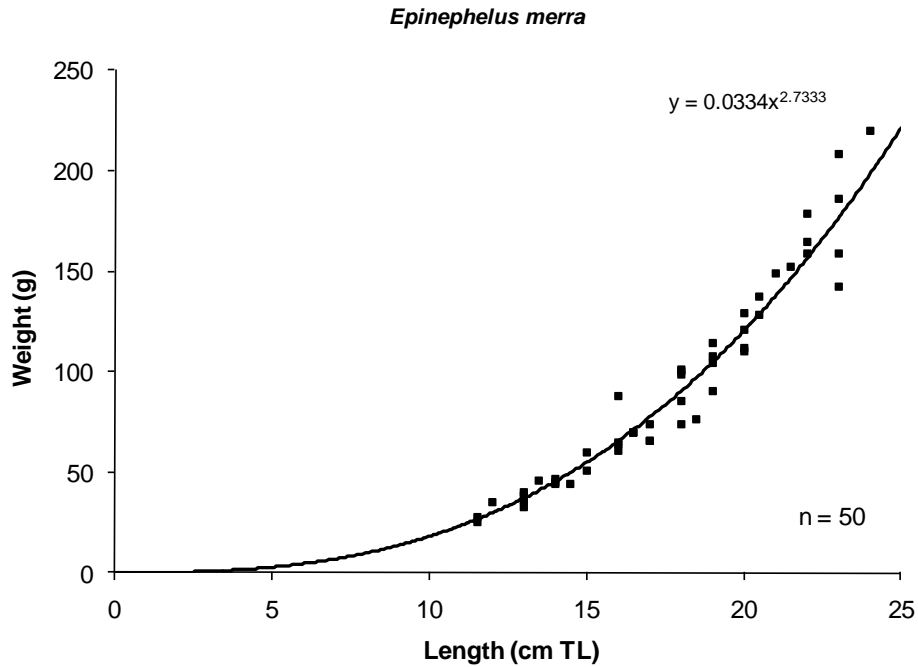
Mulloidichthys vanicolensis (n=66) Total length (cm) Weight (g)

Fish #	Length	Weight	Fish #	Length	Weight
1	15.5	34.8	51	35.0	462.7
2	18.0	57.5	52	25.2	190.2
3	23.0	204.0	53	33.5	546.1
4	23.8	130.7	54	30.9	386.9
5	24.7	156.1	55	33.6	497.3
6	25.2	152.6	56	33.0	462.2
7	25.5	157.6	57	30.7	359.6
8	25.9	158.9	58	31.9	446.0
9	26.0	170.6	59	29.6	283.2
10	26.0	178.5	60	33.2	388.1
11	26.7	188.5	61	27.9	228.0
12	27.0	200.1	62	32.7	366.0
13	27.0	213.3	63	34.4	429.0
14	27.0	212.5	64	33.0	443.5
15	27.0	196.2	65	34.0	516.4
16	28.0	227.8	66	33.0	451.2
17	28.5	238.4			
18	28.5	249.4			
19	29.0	251.1			
20	29.3	253.1			
21	29.5	255.2			
22	29.5	276.9			
23	30.0	276.7			
24	30.4	297.0			
25	30.5	332.3			
26	30.5	289.6			
27	30.5	277.8			
28	30.5	288.1			
29	30.5	304.2			
30	30.7	281.7			
31	30.8	276.1			
32	30.8	281.5			
33	30.9	321.1			
34	31.0	308.5			
35	31.0	321.9			
36	31.0	310.5			
37	31.2	319.0			
38	31.5	300.6			
39	31.5	319.1			
40	31.5	343.8			
41	31.5	328.2			
42	31.5	294.0			
43	32.0	308.0			
44	32.3	331.2			
45	32.5	319.9			
46	33.0	373.3			
47	33.0	378.1			
48	33.0	356.5			
49	34.0	435.8			
50	34.5	395.4			

Epinephelus merra Bloch, 1793

Honeycomb grouper

Family: Serranidae (Sea basses: groupers and fairy basslets)

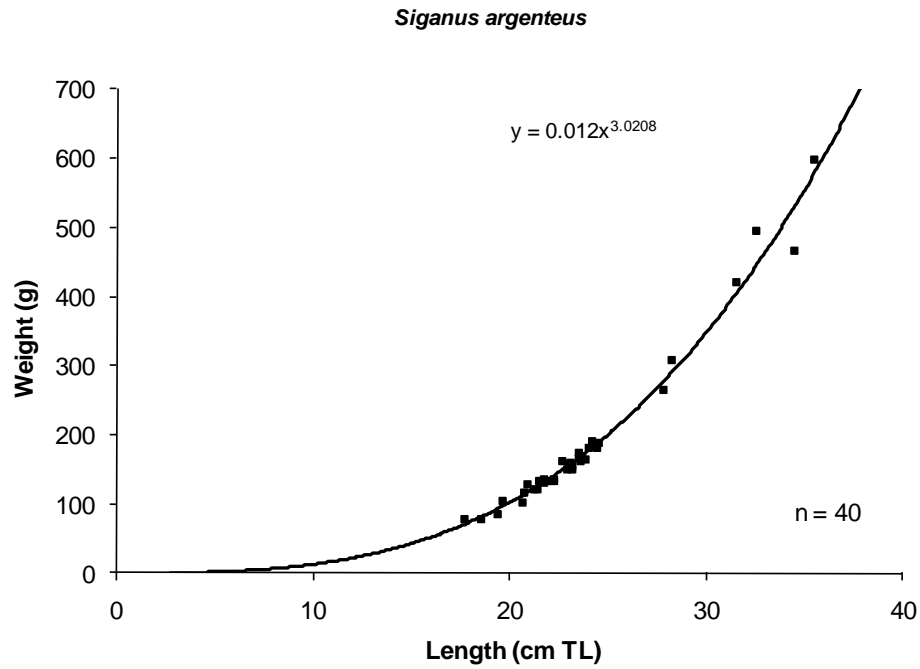


Fish #	Length	Weight	Fish #	Length	Weight
1	16.0	61.0	26	19.0	90.0
2	23.0	186.0	27	17.0	66.0
3	24.0	220.0	28	15.0	51.0
4	18.0	74.0	29	13.0	33.0
5	20.5	128.0	30	16.0	64.0
6	23.0	208.0	31	18.0	99.0
7	21.0	149.0	32	19.0	114.0
8	23.0	159.0	33	16.5	70.0
9	23.0	142.0	34	17.0	74.0
10	20.5	137.0	35	18.0	85.0
11	21.5	152.0	36	16.0	65.0
12	20.0	112.0	37	13.5	46.0
13	22.0	179.0	38	11.5	25.0
14	15.0	60.0	39	13.0	40.0
15	19.0	108.0	40	12.0	35.0
16	20.0	121.0	41	11.5	28.0
17	16.0	88.0	42	14.0	45.0
18	20.0	110.0	43	14.0	47.0
19	22.0	159.0	44	13.0	38.0
20	22.0	165.0	45	14.0	44.0
21	20.0	129.0	46	18.0	101.0
22	19.0	104.0	47	14.5	44.0
23	17.0	66.0	48	16.5	70.0
24	18.0	100.0	49	13.0	36.0
25	16.5	70.0	50	18.5	76.4

Siganus argenteus (Quoy & Gaimard, 1825)

Cordonnier long; Streamlined spinefoot

Family: Siganidae (Rabbitfishes)

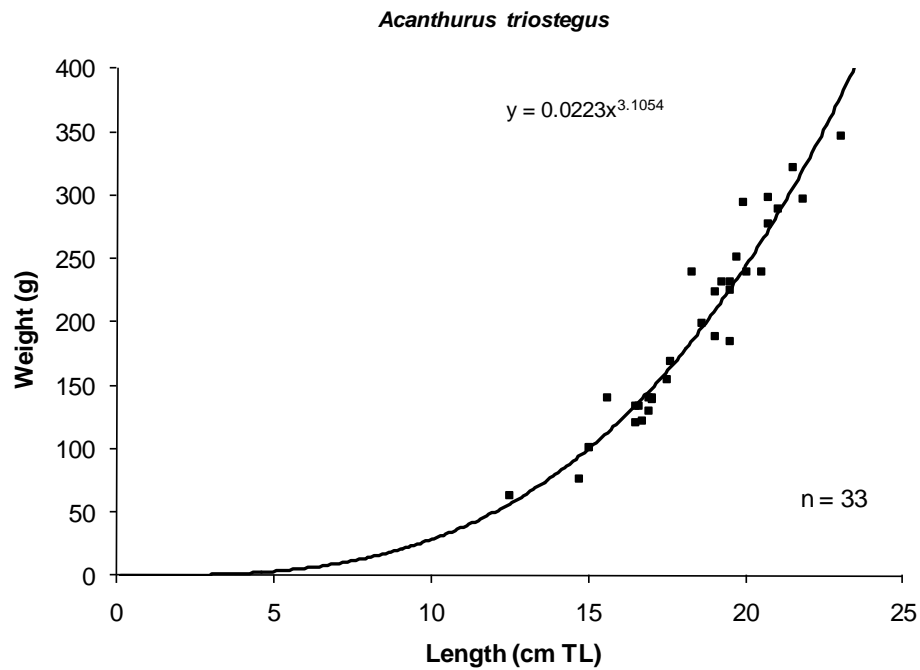


Fish #	Length	Weight	Fish #	Length	Weight
1	17.7	78.8	26	23.5	166.0
2	18.5	76.9	27	23.6	163.0
3	19.4	86.2	28	23.7	168.2
4	19.6	105.4	29	23.8	164.9
5	20.6	102.9	30	24.0	182.1
6	20.7	115.4	31	24.2	190.0
7	20.9	127.1	32	24.3	183.0
8	21.2	119.9	33	24.4	180.4
9	21.4	121.2	34	24.5	188.6
10	21.5	132.0	35	27.8	266.0
11	21.6	133.5	36	35.5	598.3
12	21.7	130.0	37	34.5	465.8
13	21.7	129.5	38	32.5	495.4
14	21.7	135.7	39	31.5	420.0
15	21.9	132.2	40	28.2	308.1
16	22.2	132.9			
17	22.2	132.4			
18	22.2	136.2			
19	22.7	161.3			
20	22.9	151.0			
21	23.0	157.0			
22	23.1	159.1			
23	23.2	155.2			
24	23.2	150.6			
25	23.5	174.0			

Acanthurus triostegus (Linnaeus, 1758)

Lorsan; Convict surgeonfish

Family: Acanthuridae (Surgeonfishes, tangs, unicornfishes)

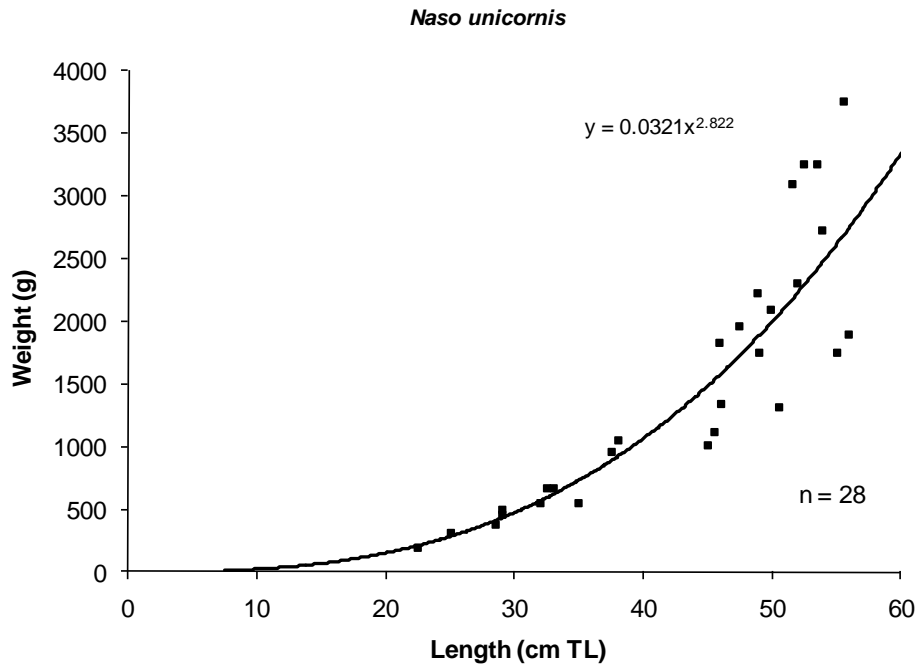


Fish #	Length	Weight	Fish #	Length	Weight
1	21.5	321.9	26	21.8	297.6
2	20.0	239.4	27	19.7	251.8
3	19.0	188.8	28	15.0	101.0
4	16.5	121.5	29	16.9	141.1
5	16.9	129.8	30	15.6	141.0
6	18.6	199.4	31	17.0	139.9
7	17.6	169.0	32	16.6	134.1
8	20.7	298.7	33	15.0	100.9
9	19.0	224.8			
10	19.5	225.5			
11	20.7	277.2			
12	16.5	134.5			
13	16.7	122.7			
14	17.0	138.6			
15	19.5	185.4			
16	23.0	347.1			
17	19.9	294.5			
18	18.3	240.4			
19	21.0	288.9			
20	19.5	232.0			
21	19.2	231.8			
22	20.5	239.3			
23	14.7	77.1			
24	17.5	155.1			
25	12.5	63.6			

Naso unicornis (Forsskål, 1775)

Licorne; Bluespine unicornfish

Family: Acanthuridae (Surgeonfishes, tangs, unicornfishes)

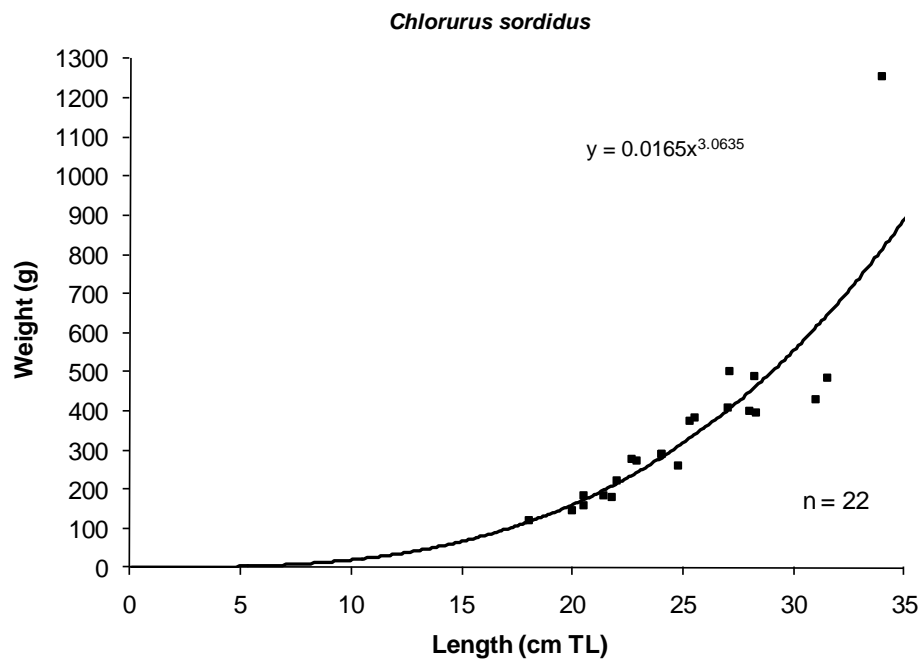


Fish #	Length	Weight	Fish #	Length	Weight
1	22.5	191.0	26	56.0	1900.3
2	25.0	305.9	27	55.0	1750.2
3	28.5	375.0	28	49.0	1750.0
4	29.0	460.0			
5	29.0	492.0			
6	32.0	551.5			
7	32.5	663.0			
8	33.0	665.0			
9	35.0	553.0			
10	37.5	961.9			
11	38.0	1053.0			
12	47.5	1960.0			
13	51.6	3100.0			
14	52.5	3250.0			
15	53.5	3250.0			
16	55.5	3750.0			
17	48.8	2225.0			
18	53.9	2731.4			
19	49.9	2090.6			
20	45.9	1825.7			
21	46.0	1338.9			
22	45.5	1120.8			
23	50.5	1308.6			
24	45.0	1009.0			
25	52.0	2305.5			

Chlorurus sordidus (Forsskål, 1775)

Cateau vert; Daisy parrotfish

Family: Scaridae (Parrotfishes)

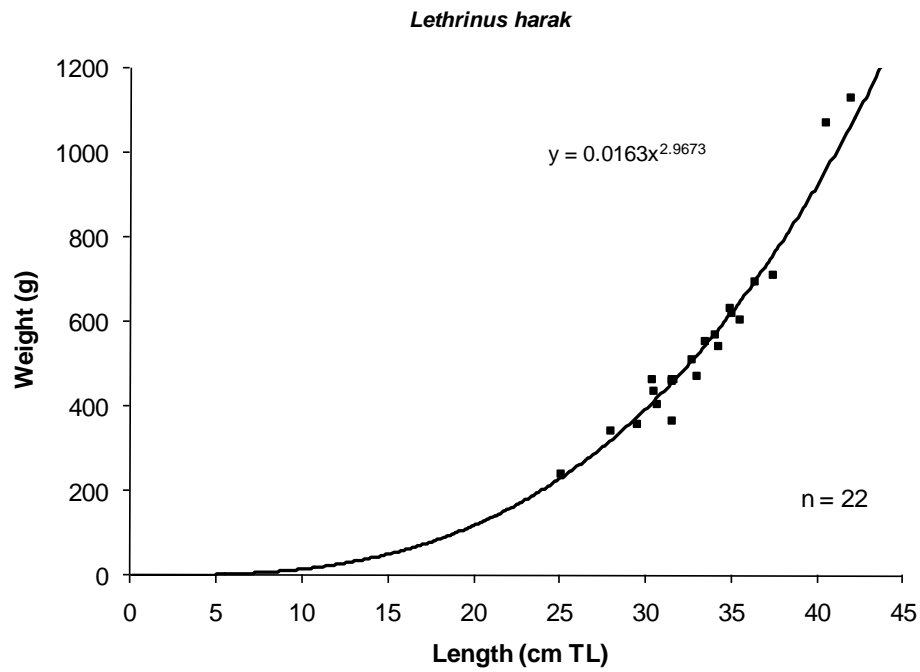


Fish #	Length	Weight
1	25.5	381.6
2	28.2	491.0
3	25.3	375.9
4	22.7	278.6
5	22.9	274.4
6	27.1	500.0
7	24.0	288.0
8	18.0	120.8
9	20.0	147.6
10	20.5	185.0
11	21.8	178.3
12	22.0	220.4
13	24.0	288.0
14	24.8	259.9
15	28.3	395.6
16	27.0	409.4
17	28.0	399.9
18	31.0	429.1
19	34.0	1257.1
20	31.5	486.4
21	21.4	182.7
22	20.5	158.1

Lethrinus harak (Forsskål, 1775)

Battardet; Thumbprint emperor

Family: Lethrinidae (Emperors)

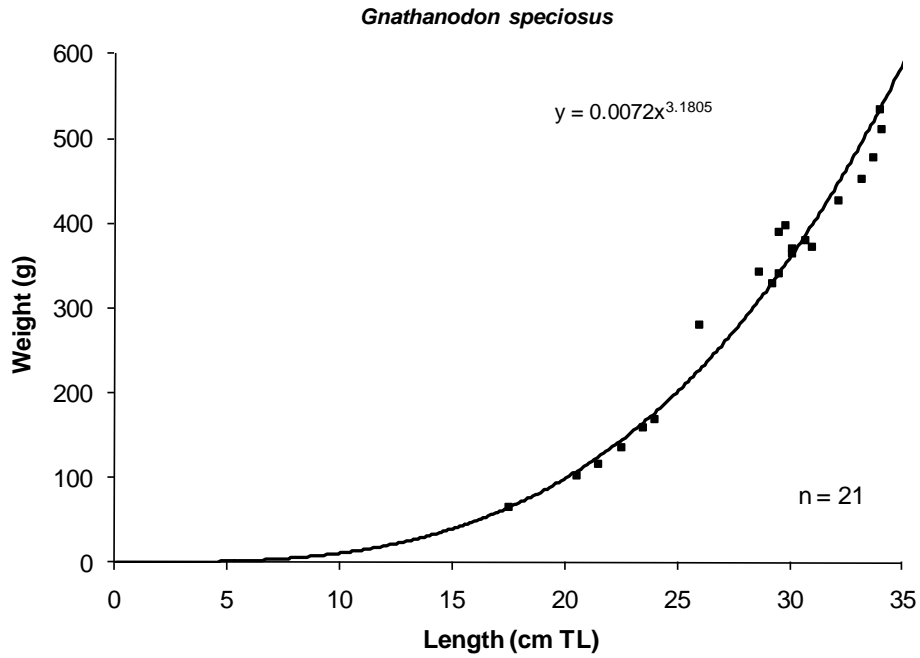


Fish #	Length	Weight
1	40.5	1071.6
2	34.9	635.1
3	42.0	1131.2
4	34.0	568.8
5	28.0	342.4
6	30.7	406.4
7	29.5	358.6
8	32.7	513.3
9	30.5	439.2
10	30.4	463.0
11	36.4	697.0
12	31.5	367.4
13	31.5	464.4
14	31.5	461.7
15	33.5	554.9
16	34.2	542.2
17	35.0	622.7
18	35.5	607.0
19	31.6	465.4
20	33.0	471.3
21	37.4	711.6
22	25.1	242.8

Gnathanodon speciosus (Forsskål, 1775)

Golden trevally

Family: Carangidae (Jacks and pompanos)

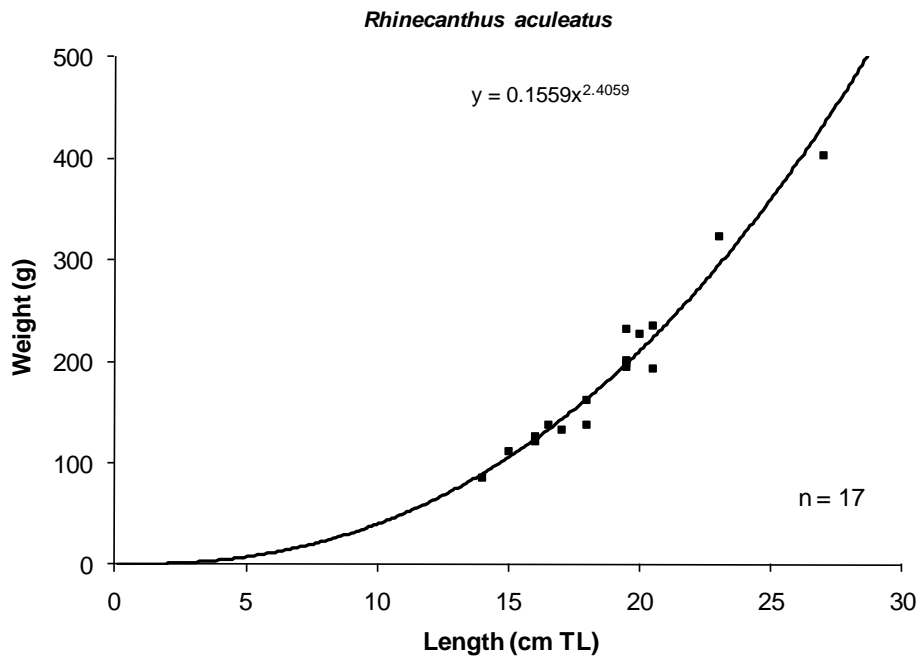


Fish #	Length	Weight
1	17.5	65.2
2	26.0	280.1
3	28.6	342.6
4	29.2	329.9
5	29.5	389.0
6	29.5	340.1
7	29.8	396.9
8	30.1	369.8
9	30.1	364.5
10	30.7	380.8
11	31.0	371.5
12	32.2	426.3
13	33.2	453.0
14	33.7	478.5
15	34.0	534.2
16	34.1	511.9
17	24.0	168.4
18	21.5	116.7
19	22.5	136.1
20	20.5	101.9
21	23.5	159.0

Rhinecanthus aculeatus (Linnaeus, 1758)

White-banded triggerfish

Family: Balistidae (Triggerfishes)

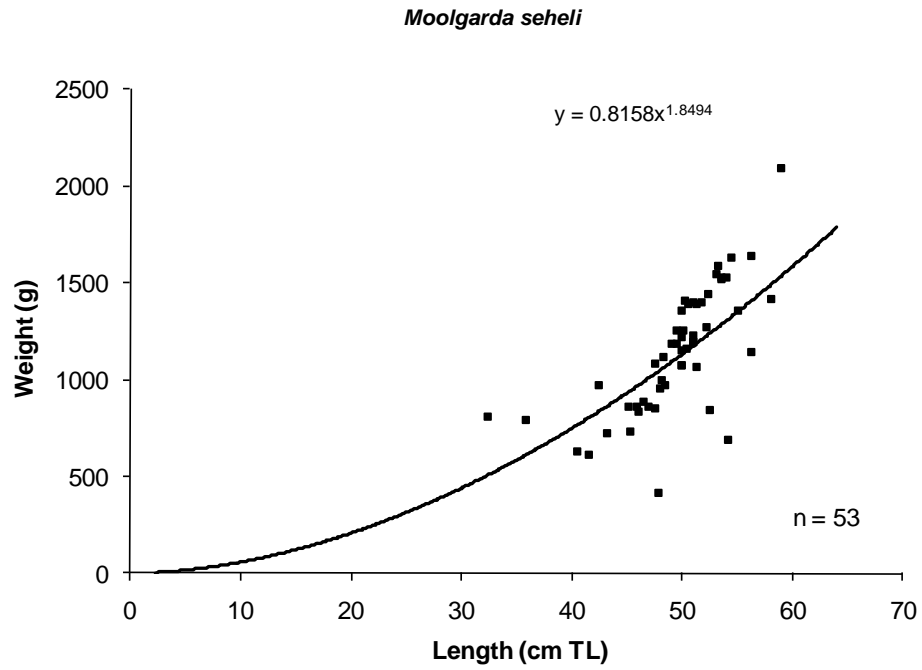


Fish #	Length	Weight
1	14.0	86.0
2	15.0	112.0
3	16.0	122.0
4	16.0	125.6
5	16.5	137.3
6	17.0	133.0
7	18.0	162.0
8	18.0	138.0
9	19.5	201.0
10	19.5	232.0
11	19.5	198.2
12	19.5	195.0
13	20.0	228.0
14	20.5	234.7
15	20.5	192.6
16	23.0	324.0
17	27.0	403.0

Moolgarda seheli (Forsskål, 1775)

Mullet; Bluespot mullet

Mugilidae (Mulletts)



Moolgarda seheli (n=53) Total length (cm) Weight (g)

Fish #	Length	Weight	Fish #	Length	Weight	Fish #	Length	Weight
1	40.5	627.4	51	51.0	1190.7			
2	42.5	967.8	52	50.0	1355.5			
3	46.5	882.6	53	50.0	1155.5			
4	47.5	1081.8						
5	47.9	411.5						
6	49.5	1184.4						
7	50.0	1217.4						
8	50.0	1078.4						
9	50.3	1409.5						
10	50.5	1393.3						
11	51.0	1192.8						
12	51.0	1401.3						
13	51.0	1231.6						
14	51.3	1394.1						
15	52.4	1442.0						
16	52.5	841.9						
17	53.1	1545.4						
18	53.2	1585.0						
19	53.5	1523.5						
20	54.0	1528.6						
21	54.1	686.6						
22	54.5	1629.5						
23	56.2	1640.1						
24	56.3	1145.9						
25	45.1	857.8						
26	50.4	1158.1						
27	50.1	1254.7						
28	32.3	805.8						
29	52.2	1269.0						
30	51.7	1401.0						
31	58.0	1418.0						
32	53.6	1531.9						
33	55.0	1356.0						
34	48.5	970.0						
35	51.3	1065.3						
36	48.0	956.8						
37	47.0	858.0						
38	47.5	854.0						
39	50.0	1072.4						
40	41.5	614.3						
41	46.0	839.0						
42	48.1	997.2						
43	35.9	793.7						
44	43.2	726.6						
45	45.9	856.9						
46	48.3	1119.4						
47	45.3	730.0						
48	49.0	1185.4						
49	59.0	2092.2						
50	49.5	1257.9						