

## SHARK LANDINGS AT KAKDWIP IN WEST BENGAL\*

From 1992 onwards 8 hooks and line units using master hooks only and 6 units using gillnet in combination with hooks and line started operation from Kakdwip base. The number of such units increased to 22 from 14 during 1993. The season for operation is from October to February. During the other months they operate only gillnets of 18 to 19 m length fitted with an inboard engine horse power varying from 72 to 120. The number of hooks per unit using hooks and lines alone varied from 70 - 100 and that using gill nets along with hooks and line varied from 30 - 50. These units are operated in regions 80 - 100 km from shore and at a depth of 40 - 45 m. Mainly dolphins and eels cut into pieces of about 250 to 400 gm are used as baits. The catch details, man power, number of trips, working days, hauls and actual fishing hours are given in Tables 1 and 2. It will be found from the Tables that the efficiency of the units has little relation with man power, length of boat and horse power and the actual working hours. The catch depend more on the efficiency of the crew than the material of the unit.

In the landing centre sharks and rays are sold to merchants from Kerala and other fishes to the local merchants. Size and weight and the price fetched for different species as well as rates for fins are given in Table 3. Sharks weighing less than 5 kg are not accepted by Kerala merchants. It will be found from the table that sharks fetch more prize than rays and bigger sharks fetch

prize comparable to *Hilsa* which has a high local demand. This has made the fishermen to resort to shark fishing.

The master hooks are supplied by merchants from Kerala on payment. The price of one set of master hooks and lines with 100 hooks of 15.4 cm size and accessories is given below:-

1. Rate per 100 piece of master hooks and accessories	Rs. 14,000.00
2. Garware rope of 0.8 cm thickness about 60 kg	Rs. 6,600.00
3. 30 pieces of 5 litre jerican	Rs. 180.00
4. Fitting charges	Rs. 1,000.00
<b>Total cost</b>	<b>Rs. 21,780.00</b>

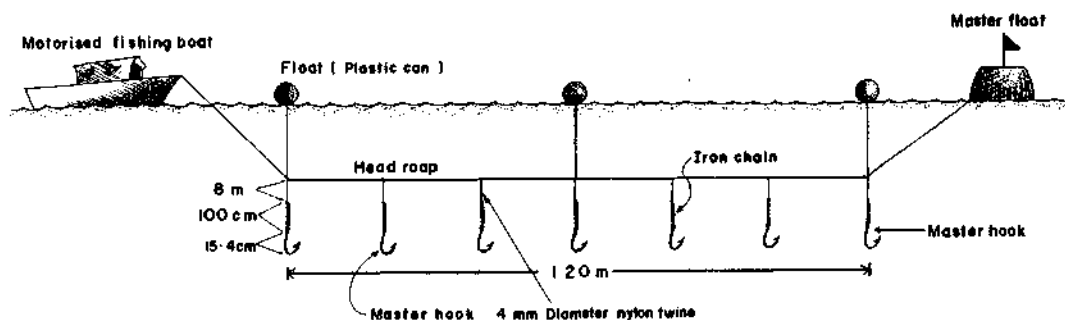
The hooks are of different sizes with numbers 0/0, 0/1, 0/2 and 0/3 and measure 6, 5, 4 and 3 inches respectively. The cost of individual hook varies from Rs. 60 to 80 depending on size.

### OPERATION OF HOOKS AND LINES

Note:-

Total cost of one hook assembly is given below:-

1. Cost of one hook of size 15.4 cm	Rs. 80.00
2. Cost of 100 cm iron chain	Rs. 30.00
3. Cost of plastic twine of 8m length and 0.4cm thickness (heavy monofilament twine)	Rs. 30.00
<b>Total cost of hook assembly</b>	<b>Rs. 140.00</b>



\* Prepared by Bijoy Krishna Burman, Contai Field Centre of C.M.F.R.I., Contai - 721401

Table 1. Unit-wise catch of different species of elasmobranchs and other fishes landed (weight in kg) at Kakkup by hooks and line during Oct. 92 to Feb. 93

Serial No. of the units	Number of trips	Craft's length (m)	H.P. of the engine	Total working days	Number of hauls	Actual fishing hours	Man power employed	Name and weight of the sharks (kg)				Total weight of sharks	Catch of sharks per trip	Name and weight of the skates (kg)			Total weight of other fishes	Total weight of sharks, skates and other fishes	Catch of elasmobranchs per trip	Catch of other fishes per trip		
								<i>Carcharhinus sorrah</i>	<i>Carcharhinus melanopterus</i>	<i>Carcharhinus longimanus</i>	Other Sharks			<i>Rhinobatos granulatus</i>	<i>Rhynchobatus djiddensis</i>	<i>Pristis</i> spp.					Total weight of skates (kg)	Catch of skates per trip
1	10	16	72	79	219	1095	9	4,530	1,300	875	1,282	7,937	793.7	1,800	975	-	2,775	277.5	904	11,616	1,071.2	90.4
2	7	16	72	53	160	800	8	2,831	500	730	1,500	5,561	794.4	1,100	630	175	1,905	272.1	1,015	8,481	1,066.6	145.0
3	9	14	68	79	219	1095	8	3,900	1,200	800	975	6,875	763.9	1,200	430	-	1,630	181.1	1,021	9,526	945.0	113.4
4	5	19	102	44	136	680	7	2,400	1,500	760	500	5,160	1032.0	875	200	120	1,195	239.0	755	7,110	1,271.0	151.0
5	6	18	98	48	170	850	8	3,035	900	675	900	5,510	918.3	900	500	180	1,580	263.3	942	8,032	1,181.7	157.0
6	9	19	98	66	229	1,145	10	4,080	1,600	1,100	1,500	8,280	920.0	620	375	-	995	110.6	740	10,015	1,030.5	82.2
7	7	16	68	51	161	805	8	2,700	1,200	830	975	5,705	815.0	250	280	90	620	86.6	640	6,965	903.6	91.4
8	6	17	72	41	126	630	7	1,830	1,100	1,000	1,200	5,130	855.0	357	300	-	657	109.5	483	6,270	964.5	80.5
Grand total	59	-	-	461	1,420	7,100	65	25,306	9,300	6,770	8,782	50,158	6892.4	7,102	3,690	565	11,357	1,541.7	6,500	68,015	8,434.1	910.9

TABLE 2. Unit wise catch of different species of Elasmobranchs and other fishes landed at Kakdwip by gillnet and hooks and line combination during Oct.'92 to Feb.'93 (weight in kg)

Serial No. of the units	Number of trips	Craft's length (m)	H.P. of the engine	Total working days	Number of hauls	Actual fishing hours	Man power employed	Name and weight of the sharks (kg)				A	Catch of sharks per trip	Name and weight of the skates (kg)			B	Catch of skates per trip (kg)	C	A+B+C	Catch of elasmobranchs per trip	Catch of other fishes per trip
								<i>Carcharhinus sorrah</i>	<i>Carcharhinus melanopterus</i>	<i>Carcharhinus longimanus</i>	Other sharks	Total weight of sharks		<i>Rhinobatos granulatus</i>	<i>Rhynchobatus djiddensis</i>	<i>Pristis</i> spp.	Total weight of sharks (kg)		Total weight of other fishes (kg)	Total weight of sharks, skates and other fishes		
1	3	19	120	25	37	185	14	1,400	375	450	800	3,025	1,008.3	280	500	-	780	260.0	475	4,280	1,268.3	158.3
2	6	14	70	46	76	380	12	2,000	1,100	775	630	4,505	750.8	250	100	150	500	83.3	383	5,388	834.2	63.8
3	4	18	98	29	52	260	12	1,200	800	730	600	3,330	832.5	430	280	-	710	177.5	302	4,342	1,010.0	75.5
4	5	14	72	36	54	270	12	1,575	830	420	500	3,325	665.0	450	200	180	830	166.0	156	4,311	831.0	31.2
5	3	19	120	21	31	155	14	1,200	800	630	750	3,380	1126.7	500	300	120	920	306.7	186	4,486	1,433.3	62.0
6	3	19	120	23	40	200	12	1,500	1,220	735	450	3,905	1301.7	140	150	100	390	130.0	190	4,485	1,431.7	63.3
Grand total	24	-	-	180	290	1,450	76	8,875	5,125	3,740	3,730	21,470	5685.0	2,050	1,530	550	4,130	1,123.5	1,692	27,292	6,808.5	454.2

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TABLE 3. Size, weight and price of sharks and skates at the landing centre caught by hooks and line

Species name	Size range (cm)	Weight range (kg)	Rate (Rs) with all fins per kg	Rate (Rs) without fins/kg	Rate (Rs) of the dry fins per kg
<i>Carcharhinus sorrah</i>	100 - 150	65 - 95	35.00 - 40.00	18.00 - 20.00	850 - 1500
	150 - 200	100 - 150	40.00 - 45.00	20.00 - 25.00	1500 - 2500
<i>Carcharhinus melanopterus</i>	100 - 150	50 - 75	30.00 - 35.00	15.00 - 18.00	1000 - 1500
<i>Carcharhinus longimanus</i>	100 - 150	60 - 85	30.00 - 35.00	15.00 - 18.00	800 - 1400
	150 - 200	100 - 150	40.00 - 45.00	30.00 - 35.00	1000 - 2000
<i>Rhinobatos</i> spp	150 - 230	100 - 125	18.00 - 20.00	12.00 - 15.00	350 - 600