

THE FISHERY CLOSED SEASON - AN OBSESSION

G. Sudhakara Rao

Former Principal Scientist

Central Marine Fisheries Research Institute, Cochin

MIG 586, Vuda Colony, Madhurwada, Visakhapatnam - 530 041

A fishery closed season is imposed either in the breeding season to give a chance to each animal in the population to breed or in the recruitment season to allow a generation of larvae or juveniles to give enough time to grow to get optimum biomass from the population. Although the intention of the scientists in such a proposal was to augment the revival of the depleting population, it became handy for certain vested interests to exploit the situation in the name of conservation measures for their advantage. This has taken roots in northeast coast prawn fishery, in particular the large trawler fishery.

The large trawler prawn fishery was at its zenith during the years 1984 and 1985 with catch per hour of trawling reaching as much as 30.1 kg (head on). The fishery was so good that all the sectors associated with large trawlers were making easy money. As there was shortage of crew, they had an upper hand and the owners of the vessels were forced to accept their demands in toto. They wanted to go on a holiday during April and May because 1) most of the crew is from Kerala and Tamil Nadu and their children get vacation during this period, and 2) the prawn landings during this period are very low and incentive they get is minimal during this period. The fishery was so poor in April and May that only 1.3% of the annual landings were recorded during this period, the Catch Per Hour (Cph) recorded for these months, 8.3 kg and 11.7 kg respectively was so poor

when compared to the annual average of 17.5 kg and the maximum of 23.3 kg in September.

Their associations, All India Deep-sea Technocrats Association and Andhra Pradesh Deep-sea Fishing Technocrats Association spearheaded their cause and proposed to the owners to observe a closed season during April 15 to June 15, saying that this is the breeding period and they are very much concerned about the conservation of the resource. Another interesting point is that the crew has to be given a paid holiday during this period. At this stage the owners approached the scientists of CMFRI, Visakhapatnam. The scientists told them that prawns breed throughout the year with a periodicity of two months and this sort of closed season might not help in improving the catches unless there is a restriction on the number of vessels. Since it was evident that the owners have to yield to the demands of the crew, the scientists did not want to embarrass them and finally it was decided to observe a two months closed season during April 15 to June 15 in 1986. The closed season that was observed voluntarily for 60 days had been forcibly extended by nature to 120 days due to bad weather during this year.

Despite observing a closed season for four months the fishery during 1986-87 was much poorer than that of 1985-86. The operators were not very happy with closed

season and wanted to do away with it. However, the crew wanted it as a permanent holiday season. The All India Deep-sea Technocrats Association convened a meeting in February 1987 inviting scientists of CMFRI also. The scientists made it very clear that they cannot agree with their opinion on spawning season and if they are very much concerned about conservation they may observe closed season in any two months period during July-December. In spite of it the association circulated a communication among all its members to desist for going out for fishing in the upper Bay of Bengal from 1st April to 30th June 1987. The operators did not yield to the demands of the crew in the beginning, but were forced to observe the closed season. The crew was jubilant and their leaders were very happy that they could dictate the activities of the industry. In spite of observing a closed season for two years the fishery collapsed in 1987-88 with a lowest Cph (15.1 kg) in the history of the fishery. These Technocrats Associations also forced the small trawlers and *sona* boats to observe the closed season from 1988 onwards. This stranglehold of the various trade unions/associations over the fishing activities from Visakhapatnam fishing harbour was so strong that all the categories of the vessels *i.e.* large trawlers, mini trawlers, *sona* boats and small mechanized boats (except day fishing) were forced to tie up the vessels for two months in 1988 forcing huge unproductive expenditure on the owners.

The closed season was observed till 1990 by all the fleets. After June 1990 the large trawler fishery was in disarray because of strikes and other problems and most of

the companies closed down their operations at Visakhapatnam. With the collapse of the large trawler fishery the technocrats association also became very weak. At this stage the Andhra Pradesh Mechanised Boat Operators Association has taken up the responsibility of imposing the closed season. During the 1991-97 period it was a hide and seek game between this association and the large trawler operators association (All India Fishing Industries), with police interfering frequently to solve the law and order problems. In 1998 it surfaced in a serious way. The Andhra Pradesh Mechanised Boat Operators Association proposed a closed season from 16.4.1998 to 18.6.1998 and approached the All India Fishing Industries to advise their members to observe the 'shrimp fishing holiday'. Since the closed season was of no use to them, they did not want to observe it. Finally police entered the scene and forced an agreement on the operators. As per the agreement the large trawlers would observe a closed season from 18.4.1998 to 15.5.1998. and the small mechanized boats during 16.4.1998 to 18.6.1998.

When it was going on like this at Visakhapatnam a similar drama was being enacted in Kerala since 1998. In spite of opposition by Balakrishnan Nair Committee, the State has observed ban on trawling during monsoon. Even after 13 years of implementation of trawler ban, the prawn fishery did not improve. Further it has provided an opportunity to develop harmful gear like ring seines and mini trawlers which are catching juvenile prawn and fin fish in large quantities. The claim that the monsoon is the peak breeding period for prawns was

not endorsed by C.M.F.R.I, which has enormous data on spawning of penaeid prawns. In fact the Government has to accept the demand of artisanal fishermen who form a good proportion of the voters in Kerala. Although it is a law and order problem, every year the Government was forced to accept the demand of ban on trawling during monsoon varying from 17 to 45 days in different years.

Nowadays it has become a fashion for some of the sociopolitical organizations to advise or even impose their vested interest in fishing industry. Already there are many conflicts between different sectors of the industry and the organizations are taking advantage of the situation. They are successful in influencing the Government of India to impose a ban on all sorts of fishing activities during monsoon in the entire country. Unfortunately, some scientists also inadvertently expressed opinions supporting such claims and administrators are seriously thinking of implementing these ideas. The state of Maharastra was the first causality in this direction, imposing ban on fishing activities during monsoon for two months since 1998.

Coming back to the situation in Andhra Pradesh, state fisheries department also became very much concerned about the conservation of the resource and they wanted to strictly enforce the Andhra Pradesh Marine Fisheries Act 1995, from 1999 onwards. A two month ban on trawling during April 15 to June 15 is an important item of the Act. However, it could be observed only for 45 days in 1999. Although

the fishery in the ensuing season was not any better, the ban continued in the years 2000 and 2001. The other east coast states of West Bengal, Orissa and Tamil Nadu also joined in imposing the ban in 2001. The fishery in 2001 was one of the worst in all respects in the history of Visakhapatnam. In spite of the grave situation of the industry one senior technocrat was very happy and stated "A single thought provoking word had led to closed season operations for shrimp in east coast. This has helped the industry at large till today".

Let us assess the situation in a scientific manner without any obsession. Coming to giving respite for fishing in east coast, one should take the weather into consideration. Even the best of fishing vessels could fish only for 220 to 240 days in a year because of the weather conditions in the seas, maintenance of the vessels, traditional festival days and personal engagement of the crew. So naturally fishing is stopped for about 125 to 145 days in a year giving chance to the recouping of the resources, if at all it is of any use. With the introduction of the closed season all the vessels were taking up maintenance work during this period with the result the workshops attending to different works increased. Once the fishing season started there was no work for most of these workshops leading to the unemployment of these workers. When there was no closed season the maintenance work was taken up in all the twelve months by the vessels depending on the convenience of the boat owners and mechanics without any layoff of the workers.

Most of the pioneers of closed season are of the opinion that April-May is the peak spawning period for penaeid prawns. Scientists have voluminous data on this aspect regarding all the commercially important species like *Penaeus monodon*, *P. indicus*, *P. merguensis*, *P. semisulcatus*, *Metapenaeus monoceros*, *M. brevicornis* and *M. affinis* and they have indicated that they spawn throughout the year with peaks varying in different years. These results were published in a number research papers and semi scientific article. The most unfortunate situation is that people at the decision taking level, either scientist-administrators or administrators, do not have the time to go through these papers and articles and go by the advise of their colleagues who introduce their personal obsessions in policy making.

Let us cite a few examples of irrelevant statements made by scientists. "Subramanyan (1963) reported that *P. indicus* spawns five times during its life span and has a prolonged breeding season from October to April. Thomas (1974) observed that *P. semisulcatus* breeds throughout the year with peak during January to February and June to September. Subramanian (1987) is of the opinion that the same species has pronounced breeding activity in May and June to September. Sukumaran *et al.*, (1993) have observed that *M. monoceros* breeds through out the year with peak during January to April along Visakhapatnam region. *M. dobsoni* is also a round-the-year-breeder with a peak period during February to March, August and November along the East Coast. Hence, it will be advisable to

suspend fishing activity during May to July and September to November months of the year while shrimp is still in juvenile stage and fishing activity during this period will affect the fishery." We are at a loss to understand what exactly these authors wanted to tell. They provide some information regarding spawning seasons of some species but at the end they talk about protection of the juveniles in some months by imposing a closed season for about six months. In their enthusiasm to support the closed season some scientists expressed such irrelevant opinions.

In another article two scientists compiled information on the spawning seasons of penaeid prawns given by different scientists to support their views on the closed season. In the process of the compilation these scientists record that *P. indicus* spawns in the Chilaka Lake during July-August, *P. merguensis* spawns in the Chilka Lake during September-January, *M. brevicornis* spawns in the Hooghly in February-March and *M. brevicornis* spawns only in the month of October off Kakinada. I am sure the original scientists did not make such observations and these distortions are the handiwork of the compilers. It is an irony that these scientists do not know that penaeid prawns do not spawn in estuaries and backwaters. Scientists who do not have even minimum knowledge on the biology of penaeid prawns attempted to give ideas of closed season in prawn fisheries.

The following table regarding the landings and fleet strength of large trawlers has been making rounds since 1993.

Year	Fleet strength	Total catch Tonnes	Catch/ trawler Tonnes
1981	59	1649	27.9
1982	68	1715	25.2
1983	68	1638	24.0
1984	68	2381	35.0
1985	75	1419	18.9
1986	85	1861	21.9
1987	100	1050	10.5
1988	131	1058	8.1
1989	157	757*	4.8
1990	168	434*	2.6
1991	180	1565	8.7

* Fall due to agitation by crew

Anyone associated with large trawler fishery at Visakhapatnam know that the above figures for all the years are far from truth. Still this table is considered for most of the policy decisions regarding deep sea fishing and large trawlers.

This is how the Government and the industries are misled. Closed season is such a burning issue in the fishing industry that every other person writes articles or gives lectures in support of closed season. Most of these people do not have any valid data at their disposal or they do not care to go

through the data presented in relevant publications. They suggest the collection of relevant data on the prawn fishery of north east coast to implement conservation measures like closed season etc. Let me make it clear to such ill informed people that we have enough data and knowledge on the biology and fishery of all the commercially important species of penaeid prawns of the north east coast collected by the CMFRI at Visakhapatnam and Kakinada since 1967. Based on these investigations scientists have been suggesting management measures from time to time for the optimum utilization of the resources. Even predictions were made about the course of events if there is no control on the number of boats. However, industry did not take cognizance of the suggestions because of the influence of vested interests on them.

A bioeconomic analysis of northeast coast demersal fisheries has indicated that a 40% reduction in the number of the vessels in each of the five fleets operating the fishery is necessary to make all the fleets economically viable. Although the recommendations were made in 1993 it is valid even in 2001. At the end let me emphasize the fact that no country could revive its depleting resources by imposing closed season without a restriction on the number of the vessels operating in the fishery.

