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CULTIVABLE FINFISH RESOURCES

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Introduction

Andaman and Nicobar Islands offer some of the best sites for finfish culture with their extensive mangrove swamps, numerours creeks and protected bays. During the survey of the islands undertaken by the Central Marine Fisheries Research Institute from January to April 1978, an attempt was made to identify the cultivable finfish resources and to find out the availability of their seeds. Fish landing centres and fish markets were also visited. Fishing operations were conducted with the help of two boats provided by the Department of Fisheries of the Andaman Administration. Fish seeds were collected using a hand operated dragnet and a scoop net.

Cultivable Species

The fish fauna of the Andaman and Nicobar Islands has been surveyed earlier by many workers (Day, 1870 ; Koumans, 1940 ; Herre, 1941). During the present survey many cultivable fishes were collected along with other fishes from various islands. They were *Mugil cephalus*, *M. dussumieri*, *Liza macrolepis*, *Chanos chanos*, *Lates calcarifer*, *Sillago sihama*, *Siganus canaliculatus*, *S. reticulatus*, *Serranus* spp. and *Lutianus* spp.

Mugil cephalus was collected from Diglipur, Mayabunder, Havelock Island, Port Blair and Chiriyatapu. *Sillago sihama* was a common species observed in the catches from Shoal Bay, off Port Blair, Chiriyatapu, Kimios Bay and Campbell Bay. *Siganus* spp. were collected from Diglipur, Rangat Bay, Shoal Bay, off Port Blair, Chiriyatapu and Kimios Bay. Apart from these fishes which can be used for fish culture in ponds, a few species suitable for cage culture were also collected. *Lutianus* spp. were observed in the catches from off Port Blair, Chiriyatapu, Sawai Bay, Kimios Bay and Campbell Bay. *Serranus* spp. were collected from Diglipur, Port Blair and Chiriyatapu. *Lates calcarifer* was found in the catches from Port Blair and Chiriyatapu (Table 1).

Table 1. *Availability of cultivable fishes in Andaman and Nicobar Islands*

Place	*Chanos chanos*	*Mugil cephalus*	*M. dussumieri*	*Mugil tade*	*Sillago sihama*	*Siganus* spp.	*Lutianus* spp.	*Serranus* spp.	*Lates calcarifer*
Diglipur	+	+	+	+	–	+	–	+	–
Mayabunder	–	+	+	+	–	–	–	–	–
Rangat	–	–	+	–	–	+	–	–	–
Shoal Bay	–	–	+	–	+	+	–	–	–
Havelock Is.	–	+	+	+	–	–	–	–	–
Port Blair	+	+	+	+	+	+	+	+	+
Chiriyatapu	+	+	+	+	+	+	+	+	+
Hut Bay	–	–	+	–	–	–	–	–	–
Sawai Bay	–	–	+	+	–	–	+	–	–
Kimios Bay	–	–	+	+	+	+	+	–	–
Campbell Bay	–	–	+	+	+	–	+	–	–

+ indicates species collected during the survey

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Fish Seed Resources

Tampi (1973) studied the availability of cultivable fish seed occurring along the coasts of the mainland of India. James *et al.* (1980) and Silas *et al.* (1980) studied the seasonal variation, distribution and the occurrence of finfish seed. However, there is no information on the availability of the finfish seed of Andaman and Nicobar Islands.

Table 2. *Availability of fish seed in Andaman and Nicobar Islands*

Place	*Mugil* spp.	*Sillago* sp.	*Siganus canaliculatus*
Blair Bay	+	–	+
Diglipur	–	–	–
Lakshmipur	+	–	–
Mayabunder	+	–	–
Rangat	+	–	–
Neill Is.	+	–	–
Corbyn's cove south	+	+	–
Havelock (Kalapathar)	+	–	–
Burmanalla	+	–	–
Chiriyatapu	+	–	–
Hut Bay	+	–	–
Sawai Bay	+	–	–
Kimios Bay	+	–	–
Spiteful Bay	+	–	–
Campbell Bay	+	–	–

The fish seed were collected with the aid of a velon screen net with 1 mm mesh, measuring 5 m long and 3 m wide. The net was dragged along the shallow backwaters, inundated areas, saltwater creeks and mangrove swamps.

Fry of *Mugil* spp. of 15-25 mm length were collected from the mangroves near Diglipur and Lakshmipur. They were also obtained from Rangat Bay and Neill Island. The fry of *Sillago sihama* measuring 20-25 mm were collected from Corbyn's cove south. The fry of *Siganus canaliculatus* measuring 25-35 mm were collected from Port Blair (Table 2). However, no attempt was made to assess the quantitative abundance of the seeds of different species.

Potential Fish Farming Areas

It has been estimated that about 37,916 ha of marshy low-lying areas and mangrove swamps are found in Andaman and Nicobar Islands (Anon., 1975). These extensive mangrove swamps and marshy areas under tidal influence can offer suitable sites for large scale fish culture operations. Such areas are found in Diglipur, Mayabunder, Rangat Bay and Campbell Bay. Further there are many creeks along Blair Bay, Ariel Bay, Galathea river and Alexandria river. The low-lying areas adjacent to the numerous creeks in the islands offer very good sites for pen culture operations. The shallow protected bays such as Ariel Bay, Blair Bay, Sawai Bay, Hut Bay and Campbell Bay are some of the areas where cage culture of fishes can be tried.

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