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Trend of SURIMI Raw Materials in the Southeast Asia



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Trend of SURIMI Raw Materials in the Southeast Asia

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I Introduction

Threadfin bream (*Nemipterus spp.*) Lizard fish (*Saurida spp.*) Bigeye (*Priacanthus spp.*) Croaker (*Johnius spp.*, *Pennahia spp.*) and Goatfish or Red mullet (*Upeneus spp.*, *Parapeneus spp.*) are economically important demersal fishes distributed from the coastal area to the continental shelf slope in the Southeast Asian Region. These species are commonly used as raw materials for Surimi manufacture in the region. In 2005 SEAFDEC/Training Department has initially conducted an activity on information collection of economically important species as Surimi raw materials under the Japanese Trust Fund project: Development of Demersal Fishery Resources Living in Un-trawlable Fishing Ground in the Southeast Asia Waters.

The pre-analysis on the status of Surimi Industry collected in the Southeast Asian countries established a linkage between demand of raw materials (Surimi industry) and demersal resources as the supplier. For this reason, it is important to understand the status of demersal resources as surimi raw materials and search for new fishery resources existing in the region.

This paper will present a trend of demersal fishes which focus on Surimi raw materials species for Southeast Asian regions base on SEAFDEC Fishery Statistical Bulletins.

II Objectives

The main aim of the information collection of economically important species as Surimi raw materials is to evaluate the present status and production and utilization trend of related species as raw material for surimi manufacture in the Southeast Asian Region. In addition, reviewing and investigating for Threadfin bream and related species in the new fishing ground such as un-trawlable grounds and on continental shelf slope are also focused.

III Materials and methods

This paper based on the marine capture statistical data from SEAFDEC fishery statistical bulletin from 1976 to 2005. SEAFDEC fishery statistical bulletin had collected fishery statistics data by sending out the questionnaire to all member countries. For the capture data of surimi raw material species; Threadfin bream (*Nemipterus spp.*) Lizard fish (*Saurida spp.*) Bigeye (*Priacanthus spp.*) Croaker (*Johnius spp.*, *Pennahia spp.*) and Goatfish or Red mullet (*Upeneus spp.*, *Parapeneus spp.*), we have the data separated by species in those 5 families as describe before from the year 1976 to 2005 and data available only from 5 countries namely Indonesia, Malaysia, Philippines, Singapore and Thailand. From those data, the simple statistical analysis was made and present in graphics.

IV Trend of Surimi Raw Materials in the Region
(from SEAFDEC Fishery Statistical Bulletin)

In Southeast Asian region the capture production growth for all 5 families of demersal fishes that use as Surimi raw materials has been very strong for the past 3 decades to a level of 624,967 MT in the year 2005. (Fig. 1 and Table 1)

Considering by country, Fig. 2 show that from the year 1976 till 1990 capture data of every countries were increased but not too strong, after the year 1990 the capture production from Thailand was increased almost 4 times from 85,516 MT to 355,679 in 2002 after this time the production was not stable and decrease to 309,479 MT in 2005. From this rapidly increasing cause the demersal fishes capture production of Thailand highest for a decade and cause the total production in this region were rapidly increased. For Indonesia a trend after 1989 was strongly increased to a level of 189,372 MT in the year 2005. For Malaysia the capture production was slowly increased till 2005. Philippines the capture production growth has been decreased after 1991 to 54,796 MT in 2001 and increased to 88,855 MT in 2002 after that the capture production were slowly decreased until 2005. For Singapore the capture production was not too much for those demersal species.

Fig. 3-7 shows a trend of Nemipteridae, Synodontidae, Priacanthidae, Mullidae, and Sciaenidae respectively from the year 1976-2005. From those figure, the production trend of Thailand in 4 families (except Mullidae) were the same pattern that the production were rapidly increased since 1990 till 2002 and for the past 4 years (2002-2005) capture production was decreasing but still higher than the other countries in these 3 families; Threadfin bream: Nemipteridae, Lizard fish: Synodontidae, and Bigeye: Priacanthidae. And for Drum and Croaker species (Sciaenidae) Indonesia had the highest production; the trend was strongly increased from 1986 till 2005 (Fig. 6) and for other species of Indonesia was also increased as shown in figure 3, 4, 5 and 7. For Singapore, the capture production is not too much and decreasing every year.

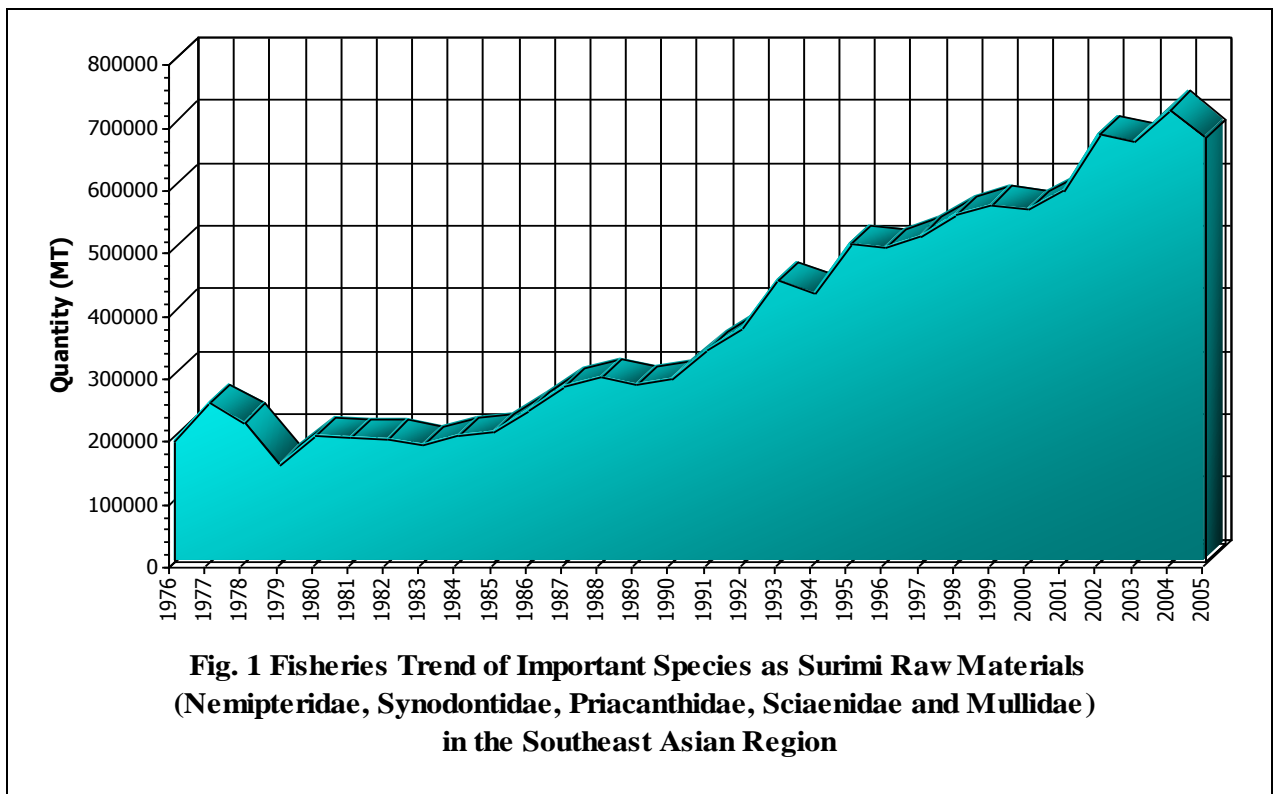


Table 1. Capture production quantity (MT) of important species as Surimi raw materials by countries

Year\Country	Indonesia	Malaysia	Philippines	Singapore	Thailand	Total
1976	23,021	24,641	96,942	1,442	49,027	195,073
1977	47,610	25,268	98,346	1,217	81,707	254,148
1978	48,454	31,578	77,198	1,539	65,372	224,141
1979	-	25,331	75,742	1,569	54,149	156,791
1980	50,479	21,179	73,283	1,358	55,924	202,223
1981	31,628	31,682	76,285	1,695	57,985	199,275
1982	53,669	27,227	68,267	2,107	46,569	197,839
1983	37,636	27,677	72,325	2,560	47,485	187,683
1984	37,623	25,991	88,345	3,011	46,309	201,279
1985	35,943	22,672	94,734	3,022	51,948	208,319
1986	39,110	30,927	95,720	2,503	74,751	243,011
1987	47,381	44,340	96,684	2,151	90,088	280,644
1988	59,558	56,471	94,437	1,767	83,172	295,405
1989	55,114	46,306	90,498	1,534	90,564	284,016
1990	61,710	50,583	92,799	1,648	85,516	292,256
1991	63,866	50,831	97,284	1,544	125,322	338,847
1992	75,550	55,868	73,539	1,153	166,846	372,956
1993	88,092	60,420	90,189	906	209,253	448,860
1994	89,205	62,432	80,292	804	195,628	428,361
1995	95,846	67,169	85,802	606	257,346	506,769
1996	108,437	49,690	80,577	528	263,159	502,391
1997	117,986	76,212	59,157	573	266,818	520,746
1998	122,868	84,881	58,693	437	286,942	553,821
1999	140,366	85,538	58,588	318	285,671	570,481
2000	134,006	84,361	56,332	200	287,707	562,606
2001	132,784	88,259	54,796	114	317,205	593,158
2002	151,793	85,592	88,855	94	355,679	682,013
2003	167,695	85,906	80,237	59	337,536	671,433
2004	184,758	109,444	77,440	74	350,335	722,051
2005	189,372	98,927	79,448	61	309,479	677,287

Fig. 3 shows a trend of Threadfin bream (Nemipteridae), from 1976 the capture production of Philippines has been the highest compared to other countries and after that the production was not stable. Until 1991 the production of Thailand had been rapidly increased and made Thailand to be the highest capture country for 15 years (1991-2005) while the capture from Indonesia and Malaysia were slowly increased.

Fig. 4 shows a trend of Lizard fishes (Synodontidae), the production of Thailand had been increasing every year and after 1990 their were rapidly increased same pattern as Threadfin bream (Nemipteridae), Indonesia and Malaysia also increased their capture production but not too high as Thailand while the capture of Philippines was slowly decreased from the year 1977 till 2005.

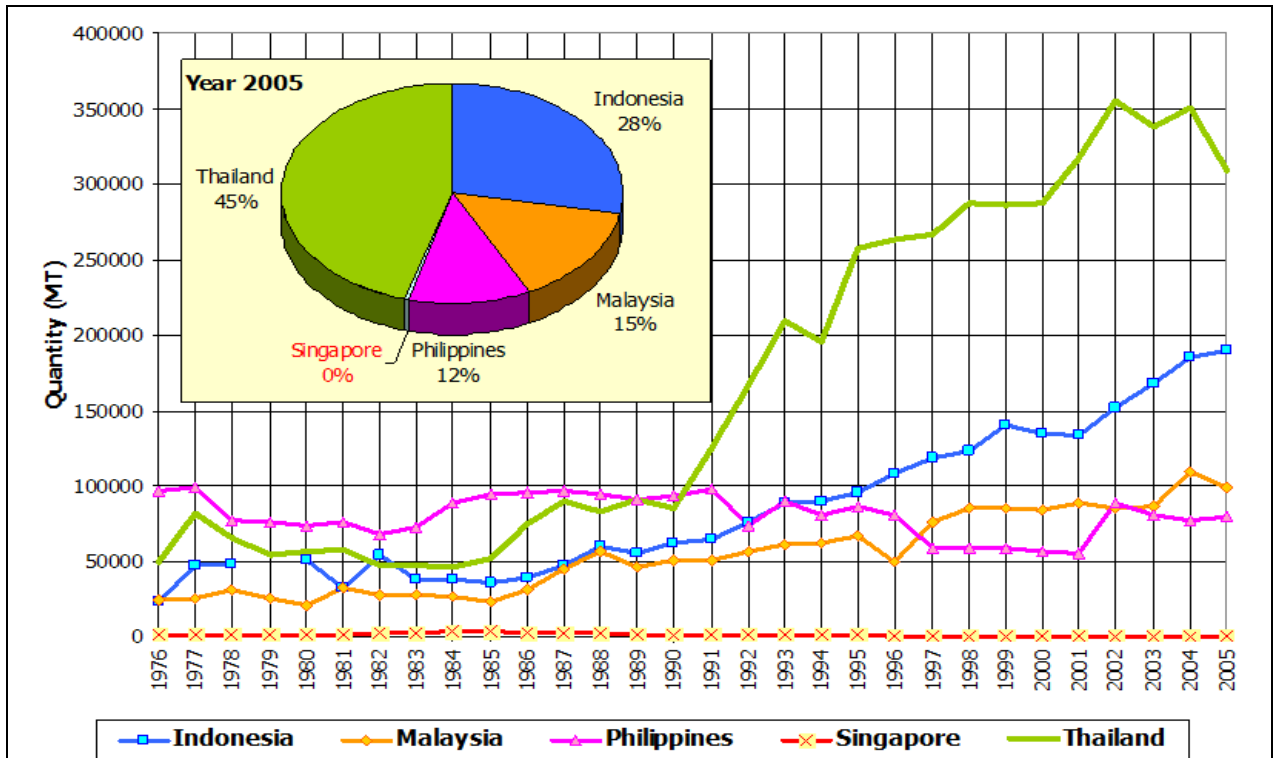


Fig. 2 Fisheries Trend of Important Species as Surimi Raw Materials (Nemipteridae, Synodontidae, Priacanthidae, Sciaenidae and Mullidae) in the Southeast Asian Region

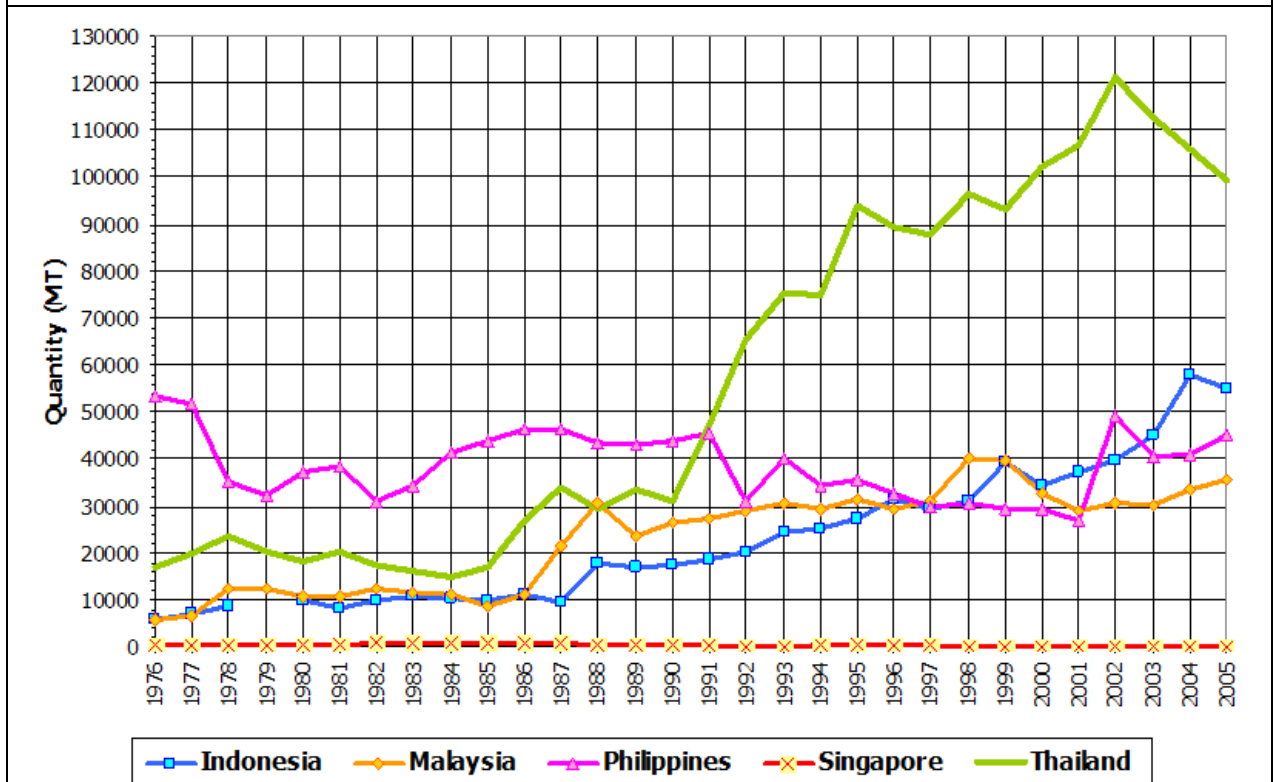


Fig. 3 Fisheries Trend of Nemipteridae in the Southeast Asian Countries

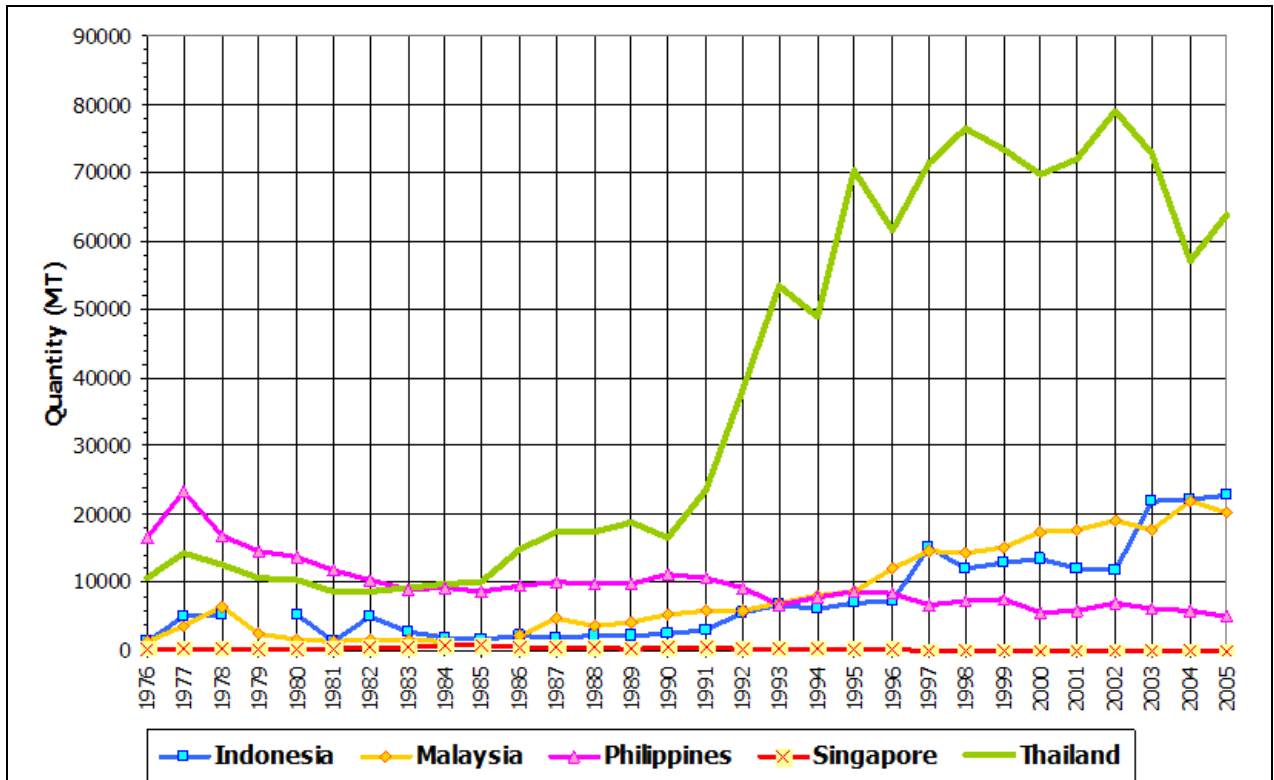


Fig. 4 Fisheries Trend of Synodontidae in the Southeast Asian Countries

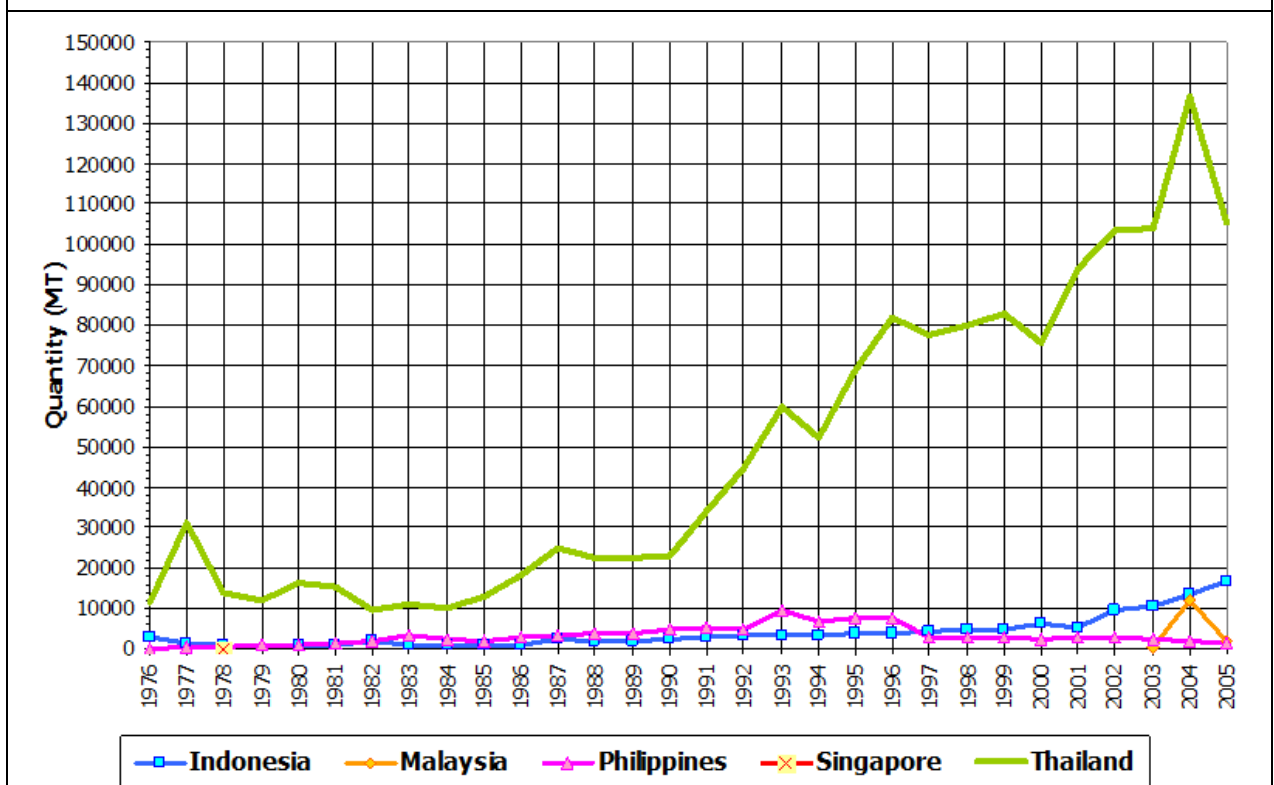


Fig. 5 Fisheries Trend of Priacanthidae in the Southeast Asian Countries

Fig. 5 shows a trend of Bigeye (Priacanthidae), Thailand’s production growth pattern was the same as Threadfin bream and Lizard fish trend that the production was rapidly increased from 1990 and made Thailand be the highest capture country for this species also. While the other countries capture were not much amount for this species.

Fig. 6 shows a trend of Drums and Croakers (Sciaenidae), for this species Indonesia had the highest capture production for the 3 decades since 1977. Thailand’s trend has the same pattern as those three species as describe before and be the second capture country of this species. For Malaysia the capture production was increasing every year while the production trend of Philippines was slowly decreasing year by year.

Fig. 7 shows a trend of Goatfish (Mullidae), from 1976 the capture production of Philippines has been the highest compared to other countries until 1996 the production was decrease and then increased again in 2002. The production trend of Indonesia from 1976 was slowly increased and after 1992 the production trend had been strongly increased and made Indonesia to be the highest capture country from 1997 till 2005 while the capture from Malaysia were increasing year by year.

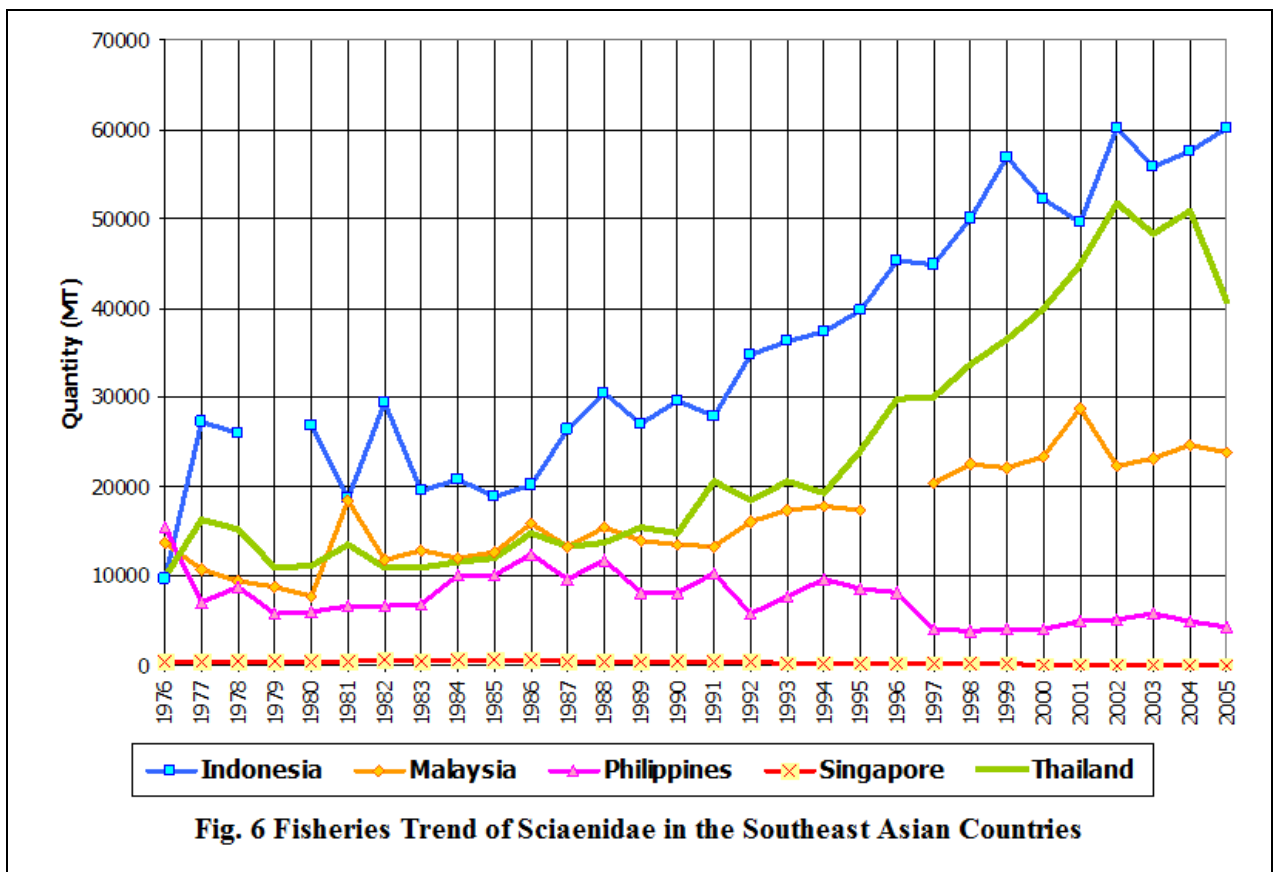


Fig. 6 Fisheries Trend of Sciaenidae in the Southeast Asian Countries

V Conclusion

- In Southeast Asian region the capture production growth for the important species as Surimi raw materials has been very strong for the past 3 decades and mainly came from the capture production of Thailand that increased rapidly since 1990.
- Species that mainly caught from this information is Threadfin bream, next are Drums and Croaker, Lizard fish, Bigeye and Goatfish respectively.
- For recent years the capture production had been decreasing especially the production from Thailand. These may be due to the decline of demersal resources in the region.

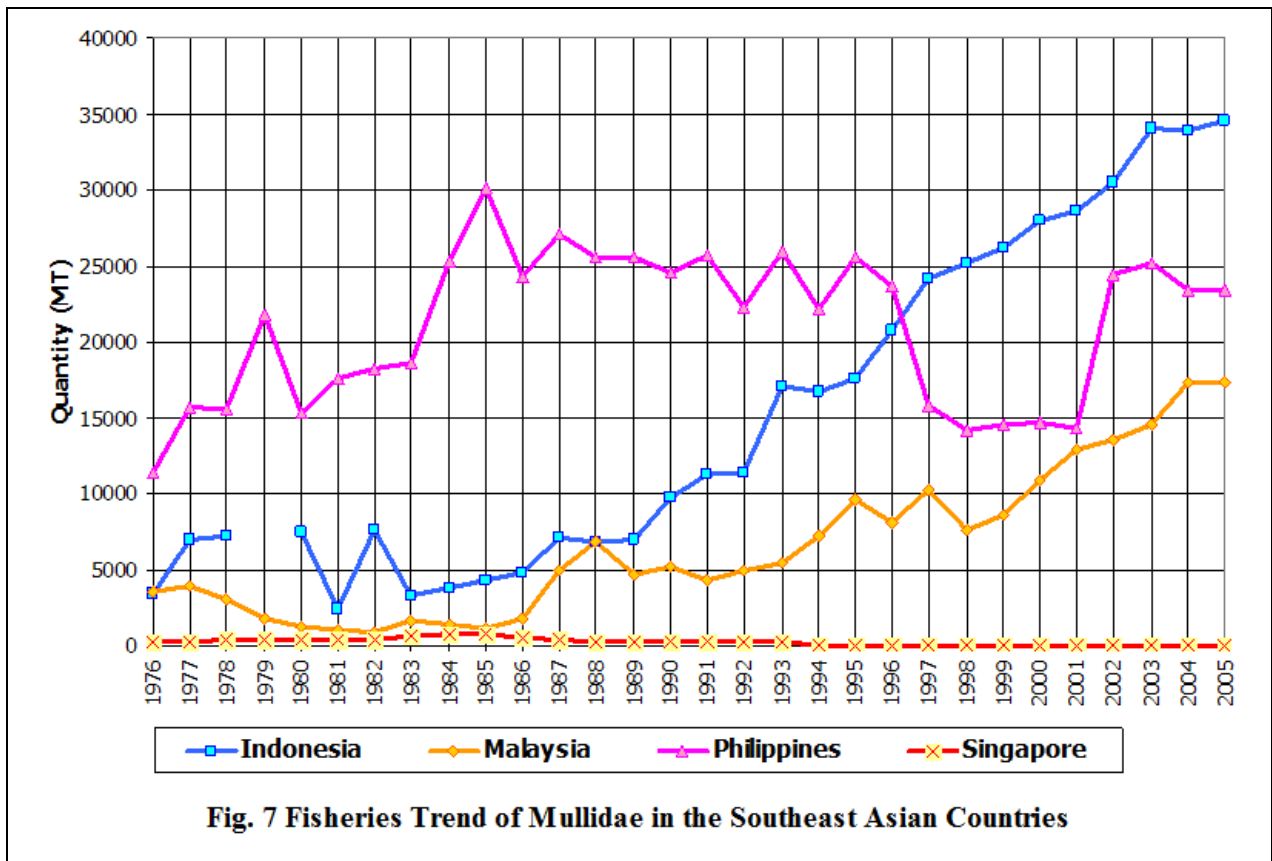


Fig. 7 Fisheries Trend of Mullidae in the Southeast Asian Countries

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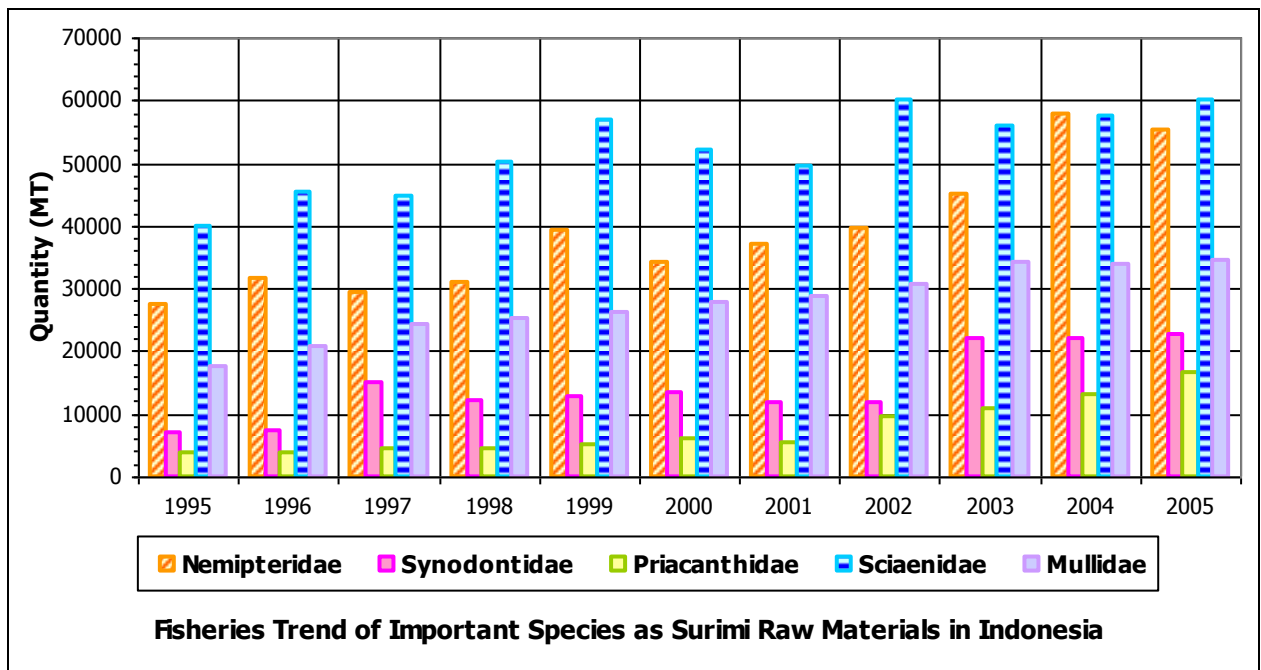
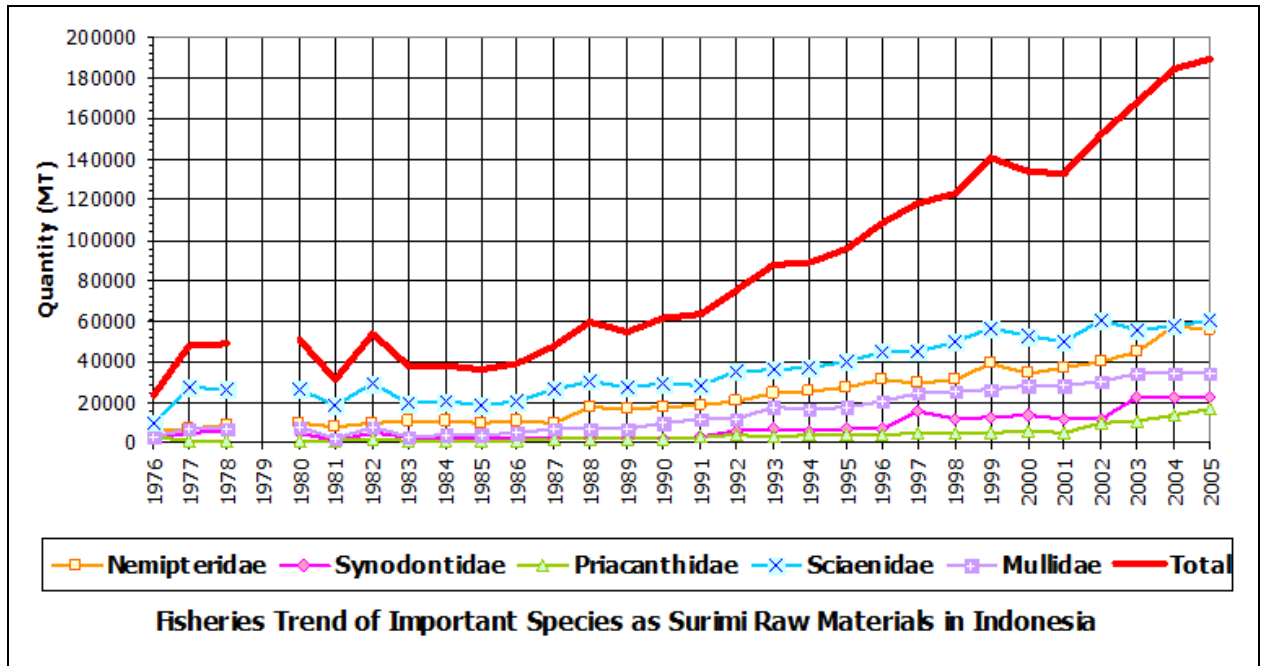
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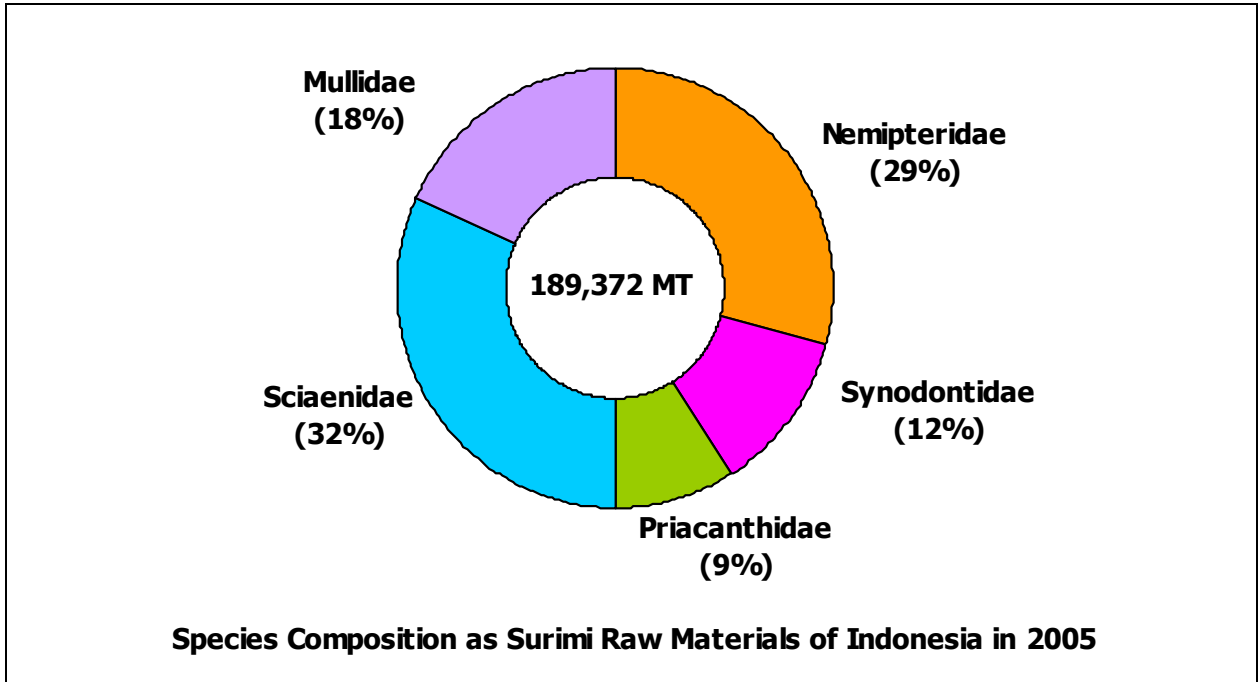
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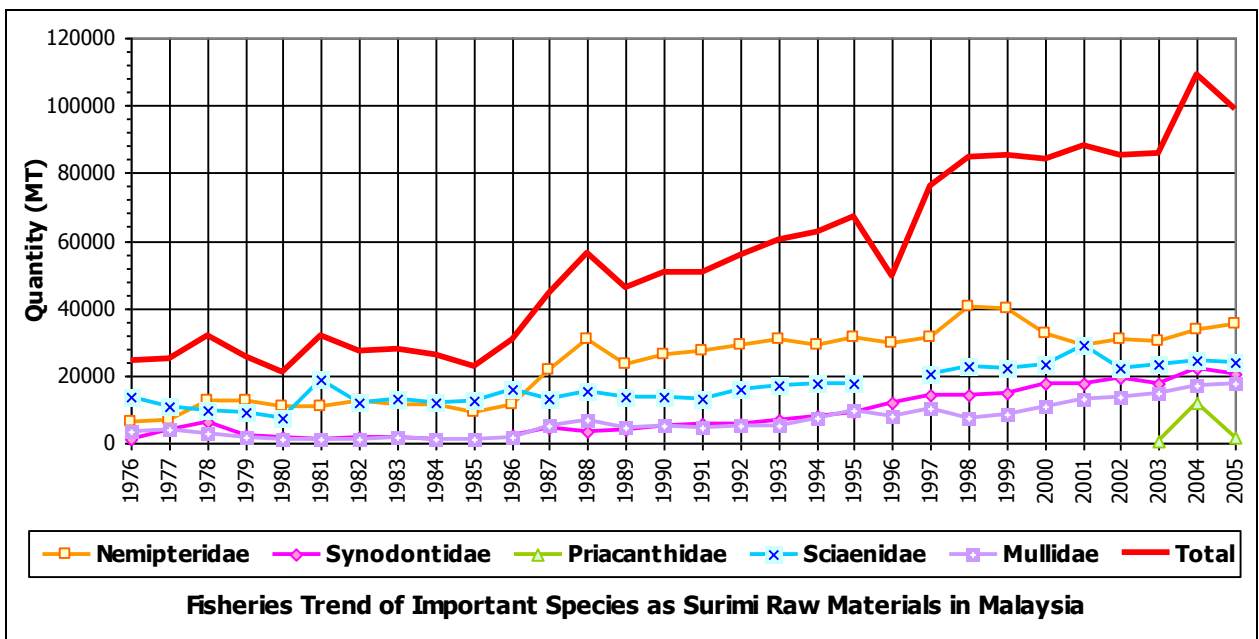
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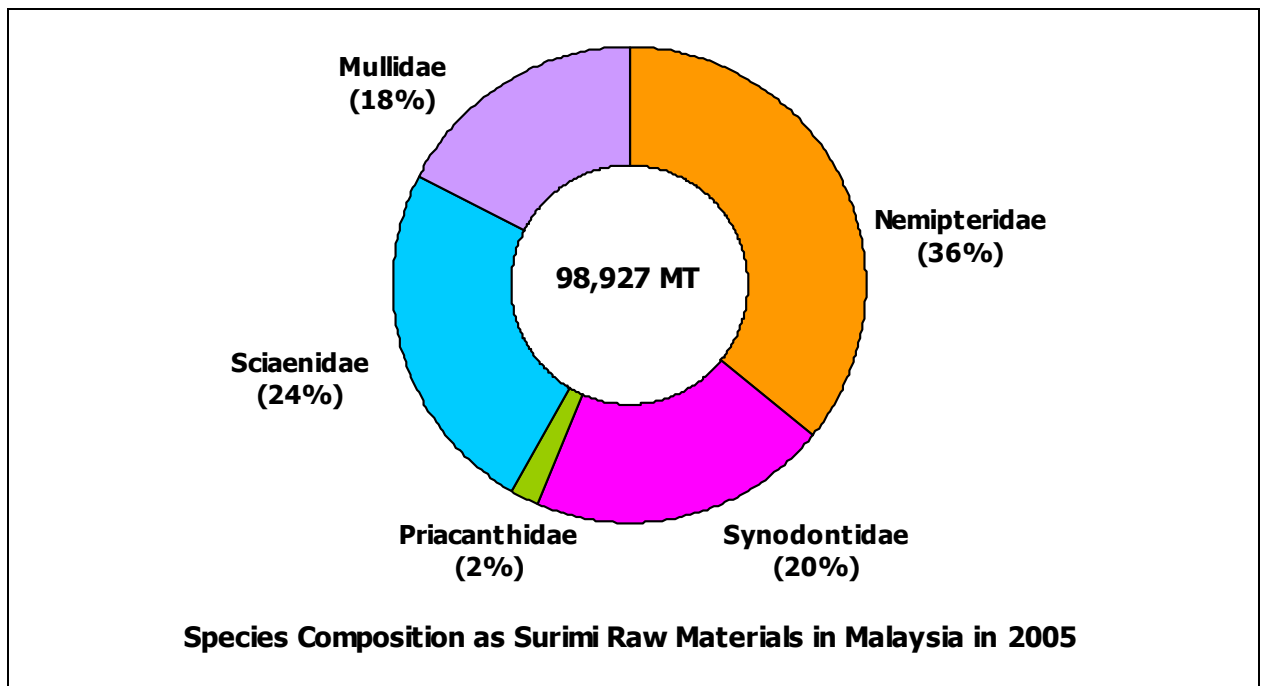
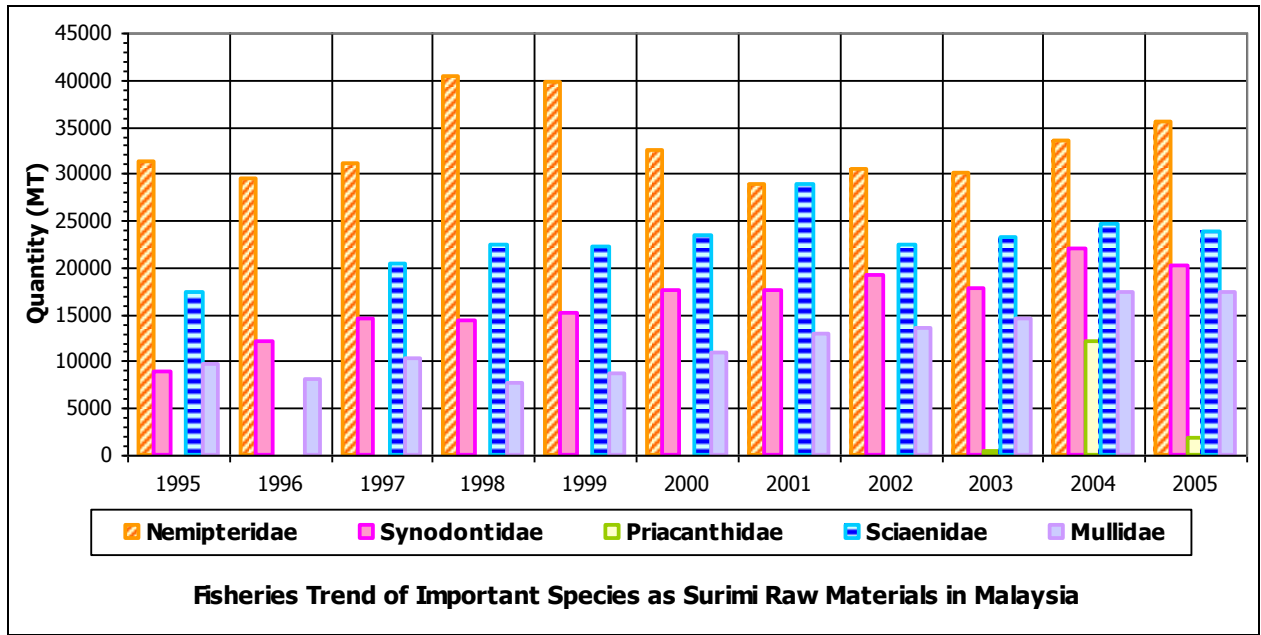
ANNEX 1: INDONESIA



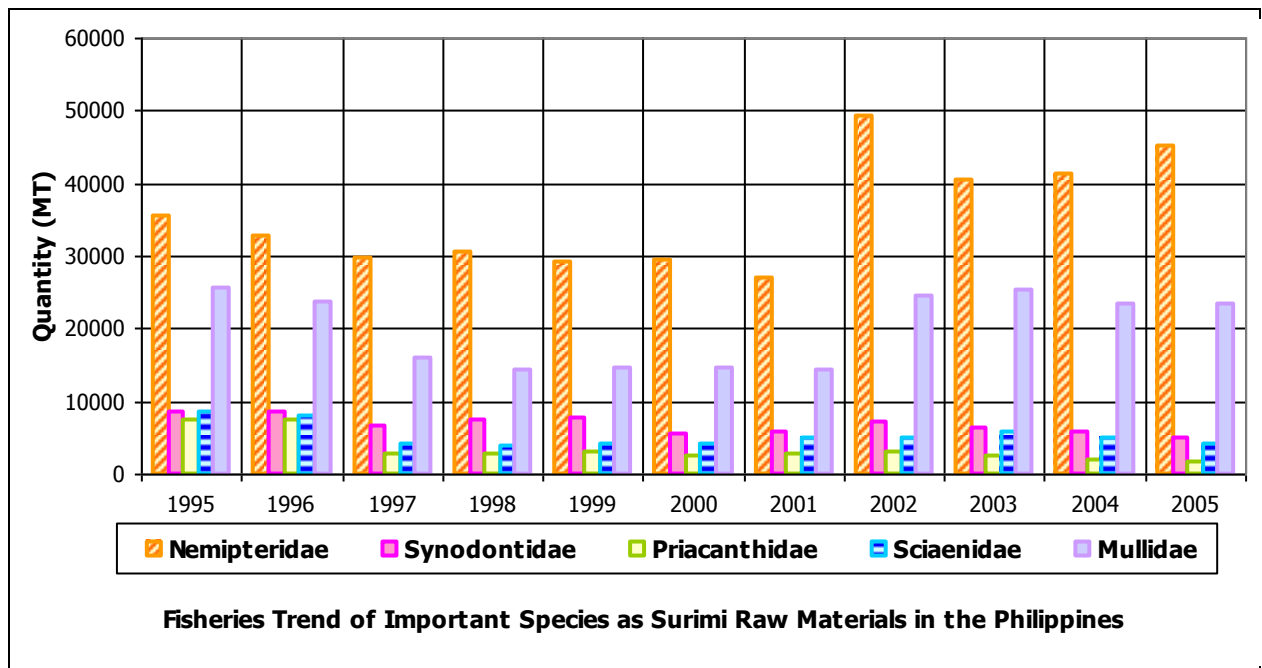
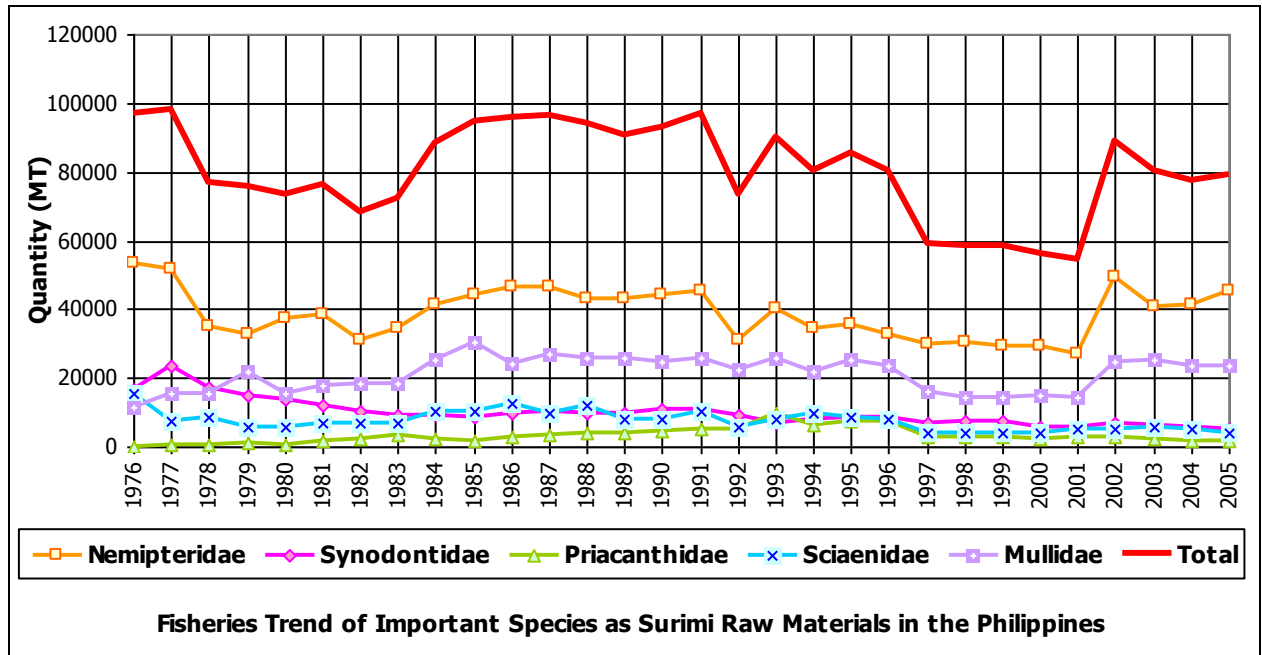


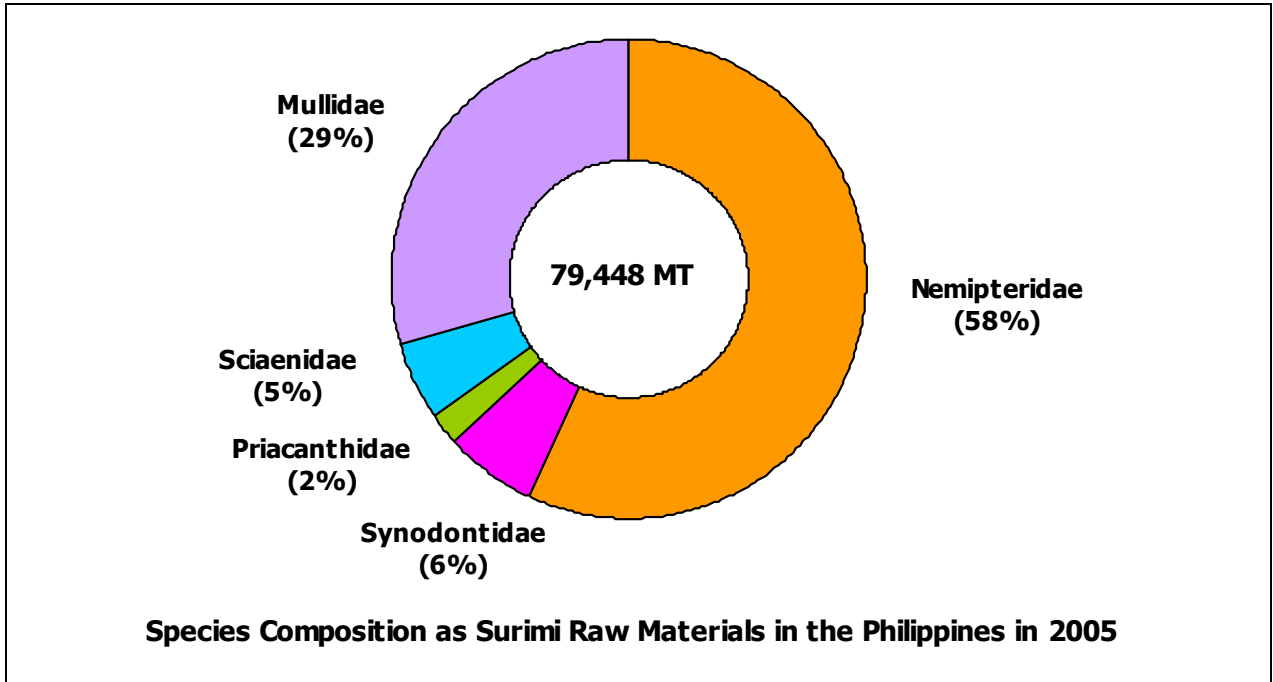
ANNEX 2: MALAYSIA



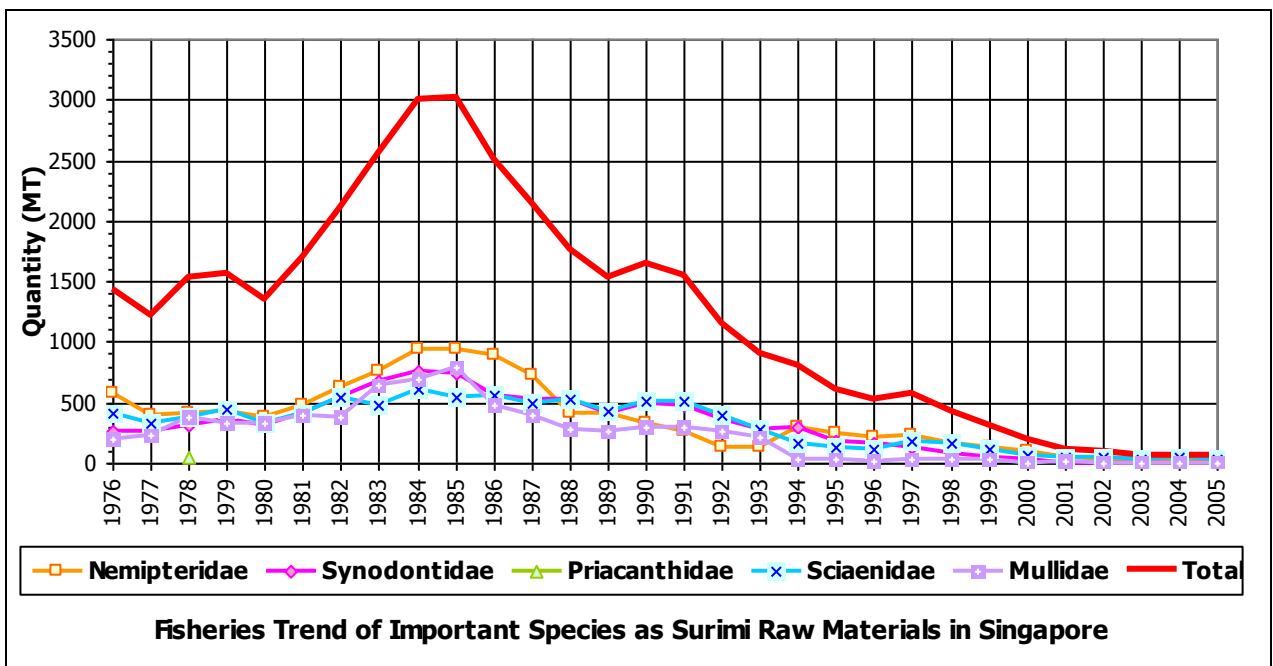


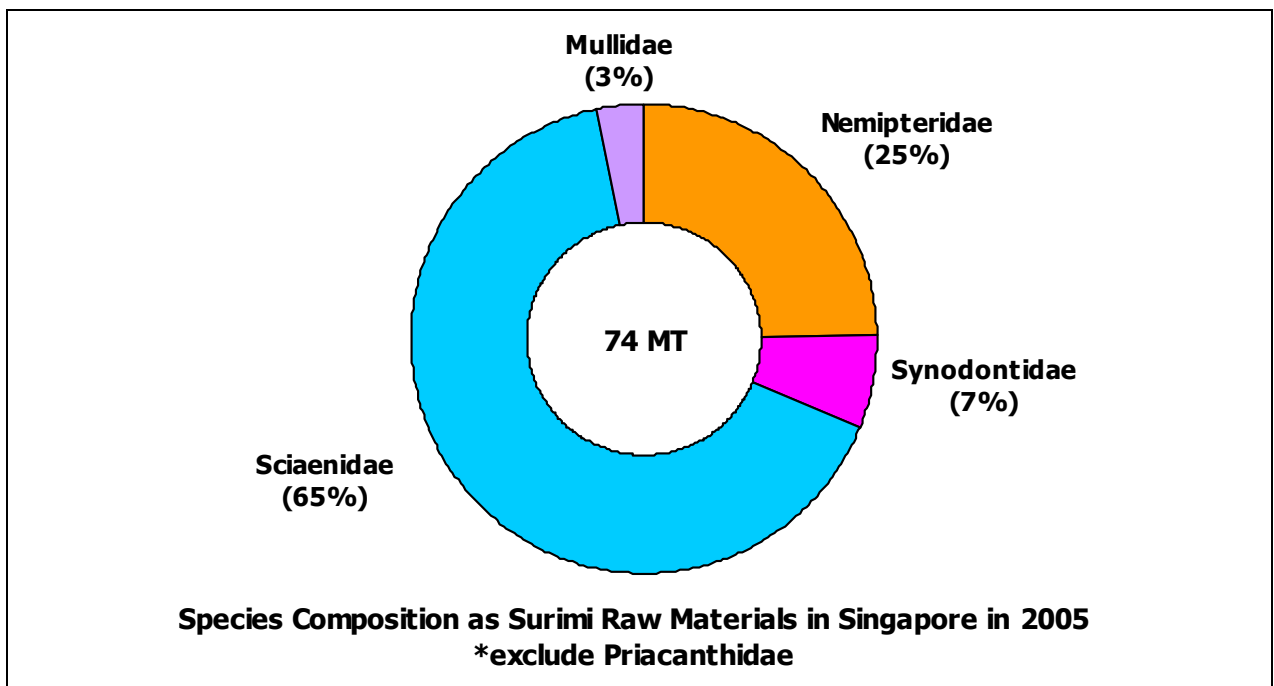
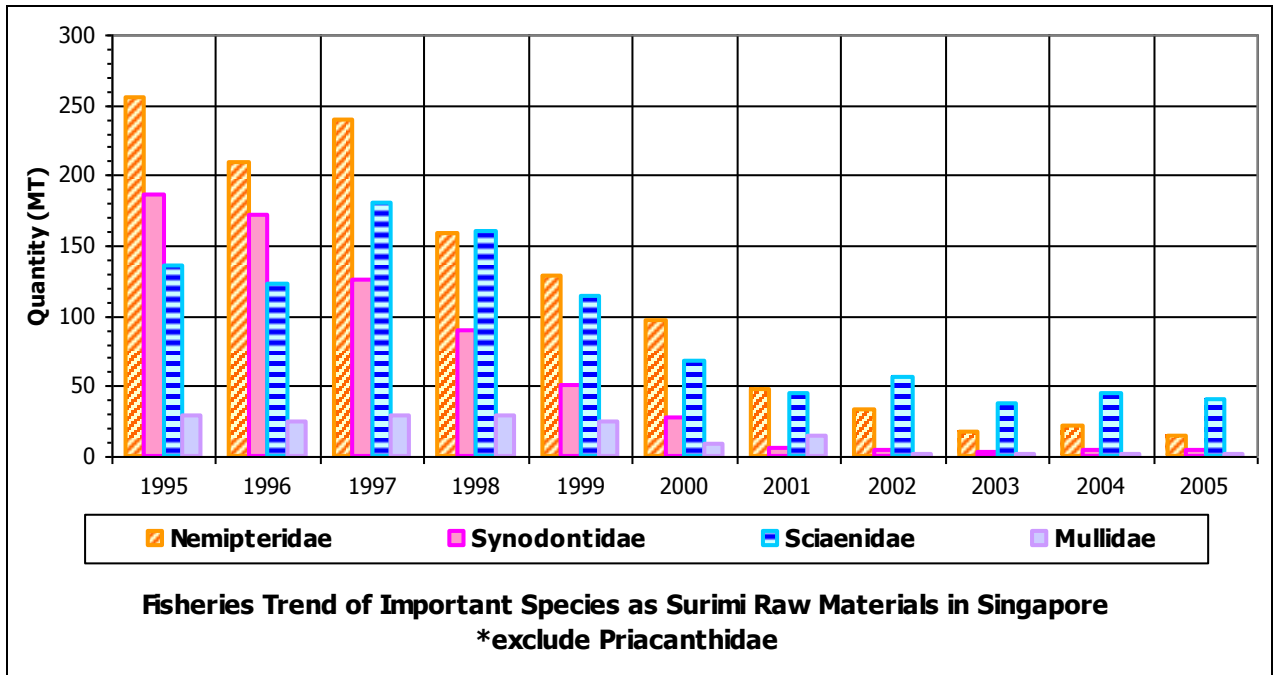
ANNEX 3: THE PHILIPPINES





ANNEX 4: SINGAPORE





ANNEX 5: THAILAND

