

## National Report of Thailand in 2009

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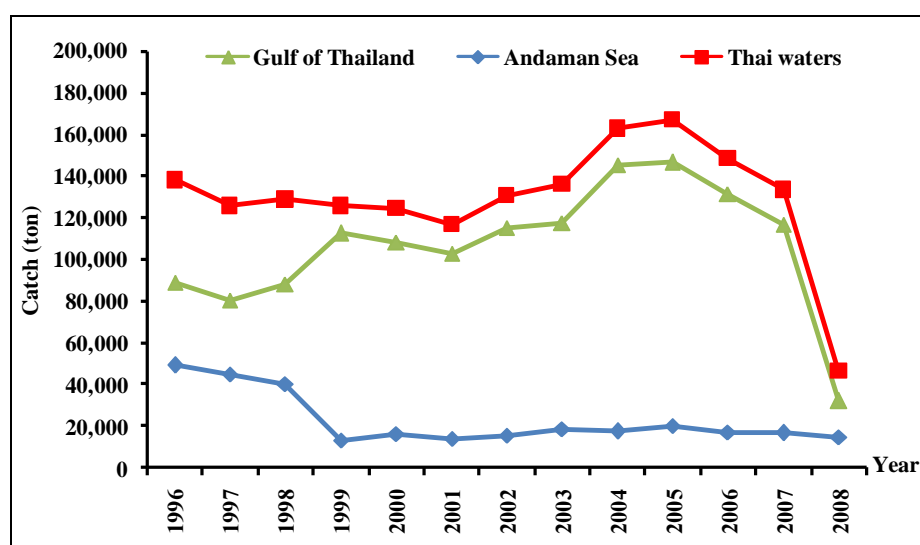
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### Summary

Neritic tuna and king mackerel species in the Andaman Sea Coast, Thailand comprise 6 species (*Thunnus tonggol*, *Euthynnus affinis*, *Auxis thazard*, *Katsuwonus pelamis* and *Sarda orientalis*, *Scomberomorus* spp.). The fishing gear used to catch neritic tuna or tuna-like are purse seine, king mackerel gill net and trawl, while purse seine is the main fishing gear. The trend of neritic tuna catches have been decreasing from 45,083 tons in 1997 to 14,332 tons in 2008. The production was quite stable around 16,329 tons during 1999 to 2008. These neritic tuna species are more or less have its production trend similarity.

### Neritic Tunas in the Andaman Sea

The development of marine fisheries in the past two decades in Thailand led to the currently rank among the top-ten fishing nations in the world. Marine fishery production in 2008 were shared about 51.33% of the total fishery production from all fishery sectors which consisted of 60.38% from the Gulf of Thailand and 39.62% from the Andaman Sea Coast. The small tunas was one of the important pelagic species. It had become the main target species for Thai fishermen since 1982 because of the high price offered by the tuna canneries. According to Department of Fisheries (DOF) statistics, figure 1 show the trend of neritic tuna in Thai waters. The total catches of neritic tunas (King mackerel, Longtail tuna and Kawakawa) in Thailand was 138,075 tons in 1996, then the trend of catch was decline until 2001 (116,454 tons), and climbed up again from 2002 (130,770 tons) to 2005 (166,946 tons) and declined again in 2006 (148,392 tons). Catch from the Gulf of Thailand show increasing since 1997 to 2005, however the catch from Andaman Sea was decreased since 1997 to 2008 (DOF; 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1995, 1996, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009 and 2010).



**Figure 1.** Neritic tuna and seer fish catch production in Thai Waters during 1996 to 2008.

Figure 2 Show change of neritic tuna and king mackerel by fishing gear in Andaman Sea, the total catches of small tunas and king mackerel decreased from 45,083 tons in 1997

to 14,332 metric tons in 2008 .The production during 1999 to 2008 was rather stagnant at the level around 16,329 tons.

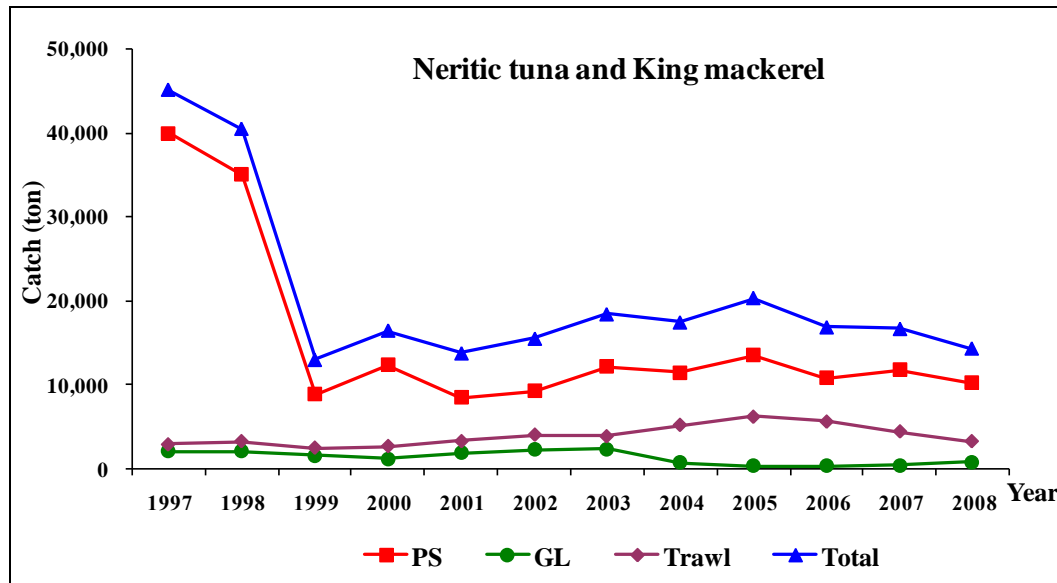


Figure 2. Change of neritic tunas and king mackerel catch in Andaman Sea, 1997-2008.

### The Fishing gear

The fishing gear use to catch neritic tuna and king mackerel namely, purse seine, gill net and trawl.

**Purse seiners:** Purse seines along the Andaman Sea Coast of Thailand can be classified into regular purse seines (RPS- that are Thai purse seine (TPS), green purse seine (GPS), fish aggregating device (FAD), light luring purse seine (LPS) , tuna purse seine (TUN) , and Chinese purse seine (CPS). Purse seiners are the main fishing to harvest neritic tuna in Andaman Sea.

Purse seiners with length over all (LOA) 18-25 meters are popular in the Andaman Sea Coast of Thailand from the year 1994 to the present year. The common mesh sizes used in TPS, LPS, FAD are approximately 2.5 centimeter, while the length and depth of the net range from 500-1,200 meters and 50-150 meters respectively. Number of crew is ranging 25-40 persons. For CPS, the mesh size is approximately 2.5 centimeter, 300-500 meters in length and 50-70 meters in depth and number of crew is about 20-30 persons. The length, depth and mesh size of GPS net are 500-1,300 meters, 60-140 meters and 3.8-4.3 centimeters respectively, and number of crew is ranging 25-40 persons.

Among the regular purse seiners, (TUN) boat length is longer than other regular purse seine that is more than 24 meter and the size of net used are also longer ranging 1,200-1,600 meters in length, 120-150 meters in depth, and 9.4 centimeter mesh size and number of crew is range 35-45 persons. Normally, TUN operates during the Northeast monsoon, from November to May in the offshore area. Apart from those months, the TUN boat moves to fish pelagic species in coastal area or offshore area by using the net of mesh size 2.5 centimeter and change the gear to be LPS and TPS.

King mackerel gill net and trawler catch some neritic tuna and most of king mackerel. The species breakdown of neritic tunas and tuna-like species in the nation statistic report is kawakawa or eastern little tuna (*Euthynnus affinis*), frigate tuna (*Auxis thazard*), longtail tuna (*Thunnus tonggol*) and Scomberomorus spp. Figures 3-5 show change of catch by species and gear.

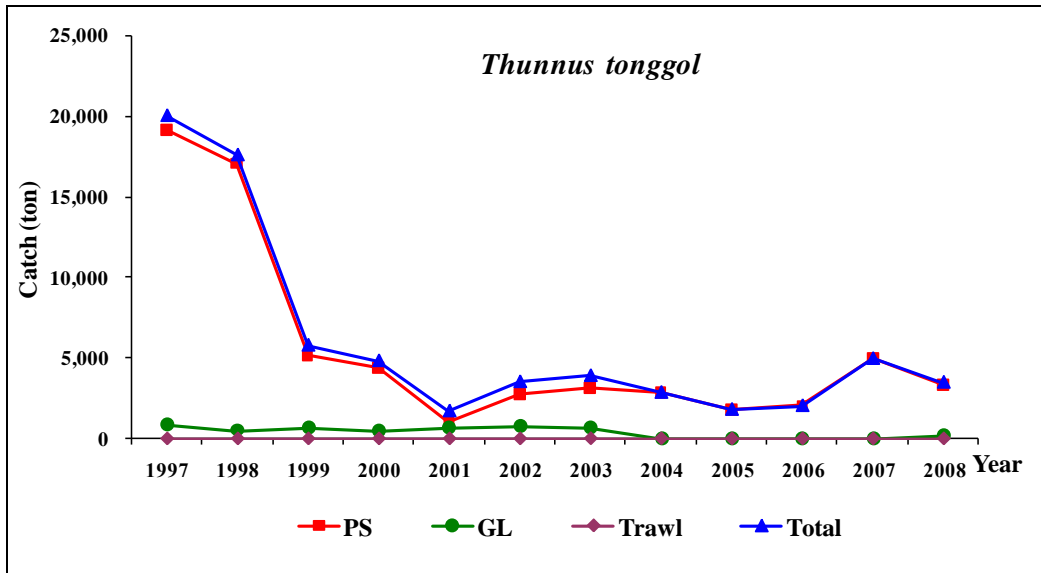


Figure 3. Change of longtail tuna catch in Andaman Sea, 1997-2008.

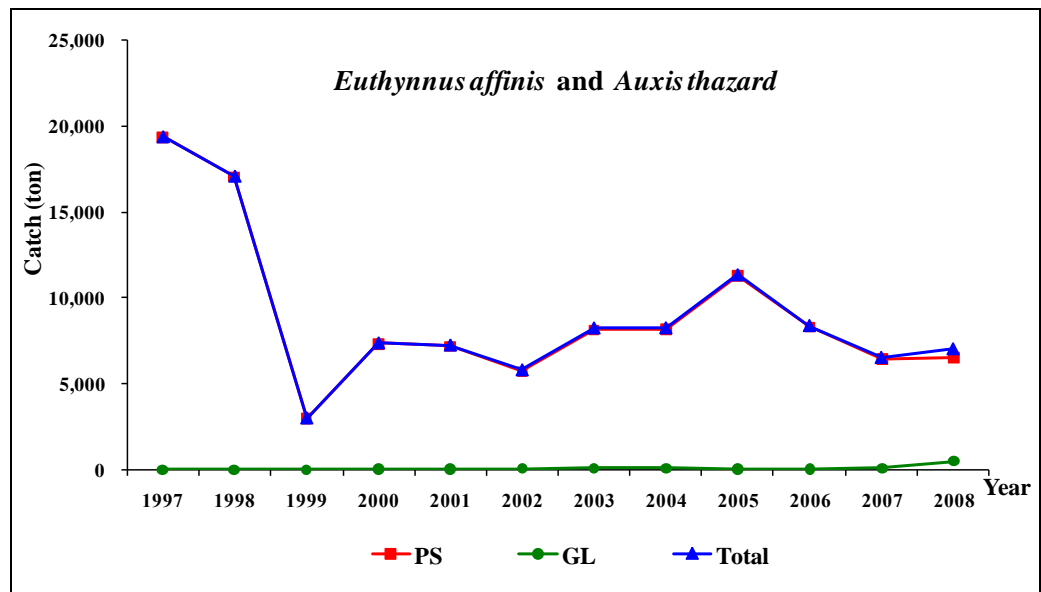


Figure 4. Change of kawakawa and frigate tuna catch in Andaman Sea, 1997-2008.

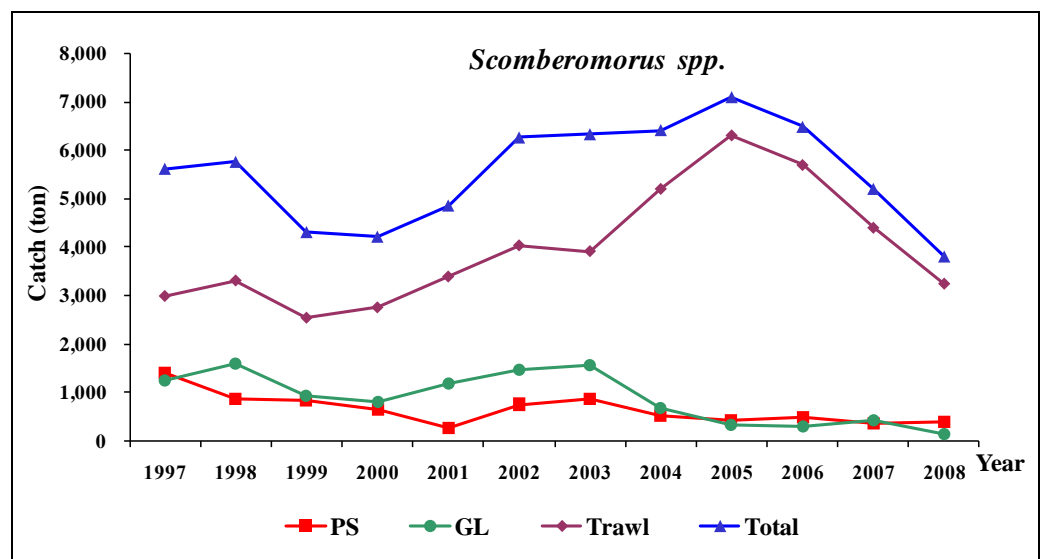


Figure 5. Change of king mackerel catch in Andaman Sea, 1997-2008.

## Progress of data collection based on the enumerator at the selected tuna landing sites in 2009

Landing survey was conducted to collect fishing information of tuna, tuna-like and by-catch species: e.g., type of fishing gears, catch (tons), effort (number of trip). The staffs of AFRDEC have conducted the samplings monthly at Ranong, Phang-Nga, Phuket, Krabi, Trang and Satun Provinces (Annex 1) for neritic tuna from domestic fishing vessel.

In addition, oceanic tuna from foreign fishing vessels was conducted to collect data information at Phuket Province. The methodology employed and all the forms used in fishery interviews same as the above mention.

### Domestic Fleets Fisheries

#### Purse seine

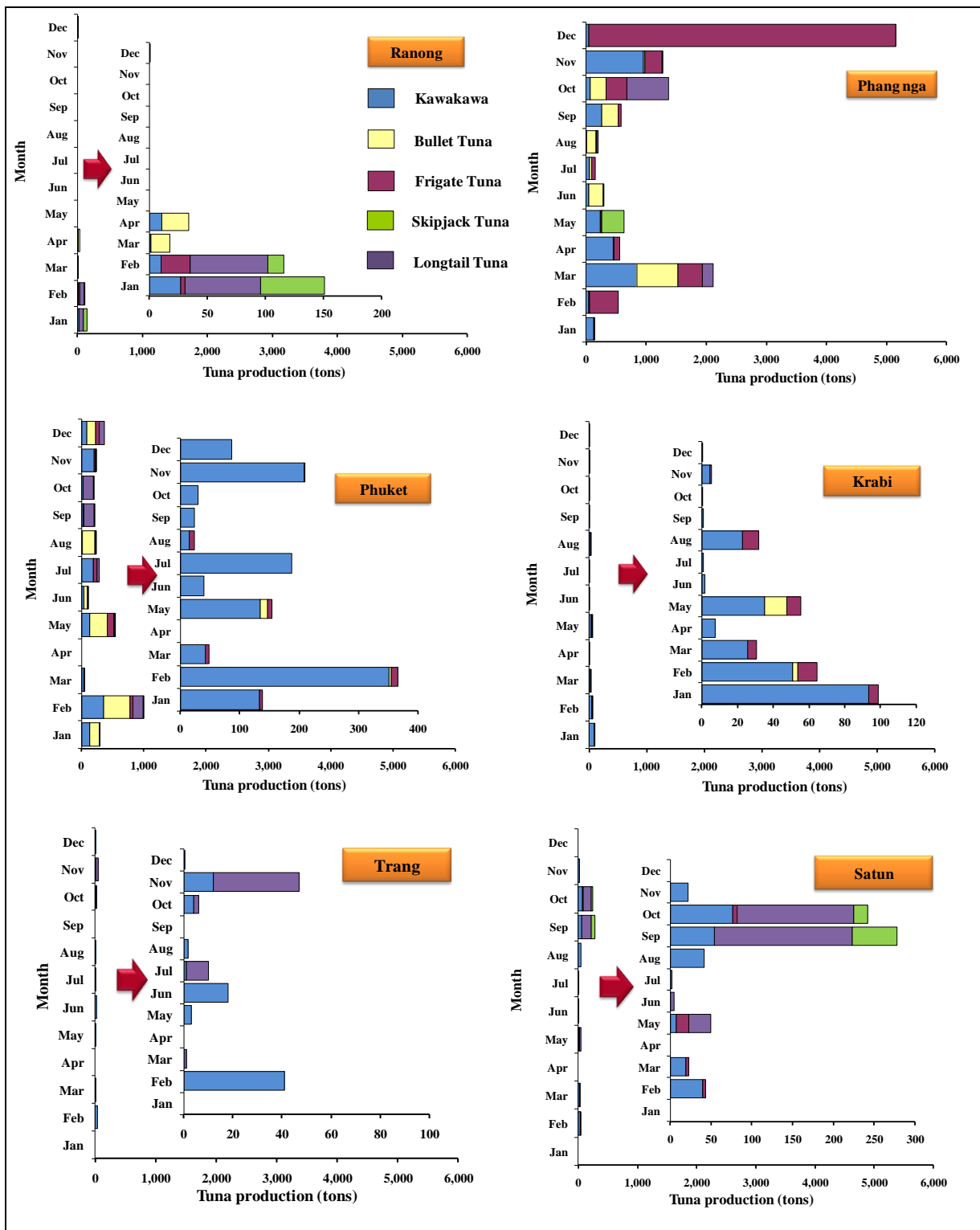
Andaman Sea: Five species of tuna namely, Kawakawa, Frigate tuna, Bullet tuna (*Auxis rochei*), Longtail tuna and Skipjack tuna (*Katsuwonus pelamis*) caught from light luring purse seine (LPS), FADs, TUNA, TPS, CPS and APS in areas 6, 7, D and E, show in the Annex 1. Frigate Tuna was the highest abundance (40.57 % of total catch) in the Andaman Sea, followed by Kawakawa (27.95 %), Bullet Tuna (16.85 %), Longtail tuna (11.52 %) and Skipjack tuna (3.11 %). Frigate tuna was the high abundance in area 6 from LPS in December. Kawakawa tuna was the high abundance in area 6 from LPS in November. Bullet tuna caught in areas 6 from LPS in March, while Longtail tuna was high abundance from TUNA in area 7 in September. Skipjack tuna was the high abundance from LPS in May from area 6 (Table 1).

**Table 1.** Catch (tons) and percentage of tuna by type of fishing gears in the Andaman Sea in 2009

Gear	Frigate Tuna	Kawakawa	Skipjack Tuna	Bullet Tuna	Longtail Tuna	Total	%
APS	0.00	21.33	0.00	0.00	0.00	21.33	0.12
CPS	0.00	0.05	0.00	0.00	0.00	0.05	0.00
FADs	769.88	792.53	0.00	6.82	30.41	1,599.63	8.89
LPS	6,440.54	3,991.81	389.47	2,837.92	1,322.69	14,982.43	83.22
TPS	43.95	68.42	2.61	188.82	9.01	312.82	1.74
TUNA	50.00	157.52	168.34	0.00	711.15	1,087.00	6.04
<b>Total</b>	<b>7,304.36</b>	<b>5,031.66</b>	<b>560.42</b>	<b>3,033.57</b>	<b>2,073.25</b>	<b>18,003.26</b>	<b>100.00</b>
<b>%</b>	<b>40.57</b>	<b>27.95</b>	<b>3.11</b>	<b>16.85</b>	<b>11.52</b>	<b>100.00</b>	

Figure 6 show catch per species in each month and landing places along the Andaman Sea. Phangnga Province reported the highest production of tuna (13,013 tons) in the Andaman Sea, the fishing grounds were in the areas 6, followed by Phuket landing place reported 3,537 tons of neritic tuna caught in area 7. Satun, Ranong and Krabi Provinces reported neritic tuna catch as 708, 319 and 299 tons, where the fishing grounds in area 7 for Krabi and Satun Provinces while Ranong Province reported areas D and E.

### Andaman Sea



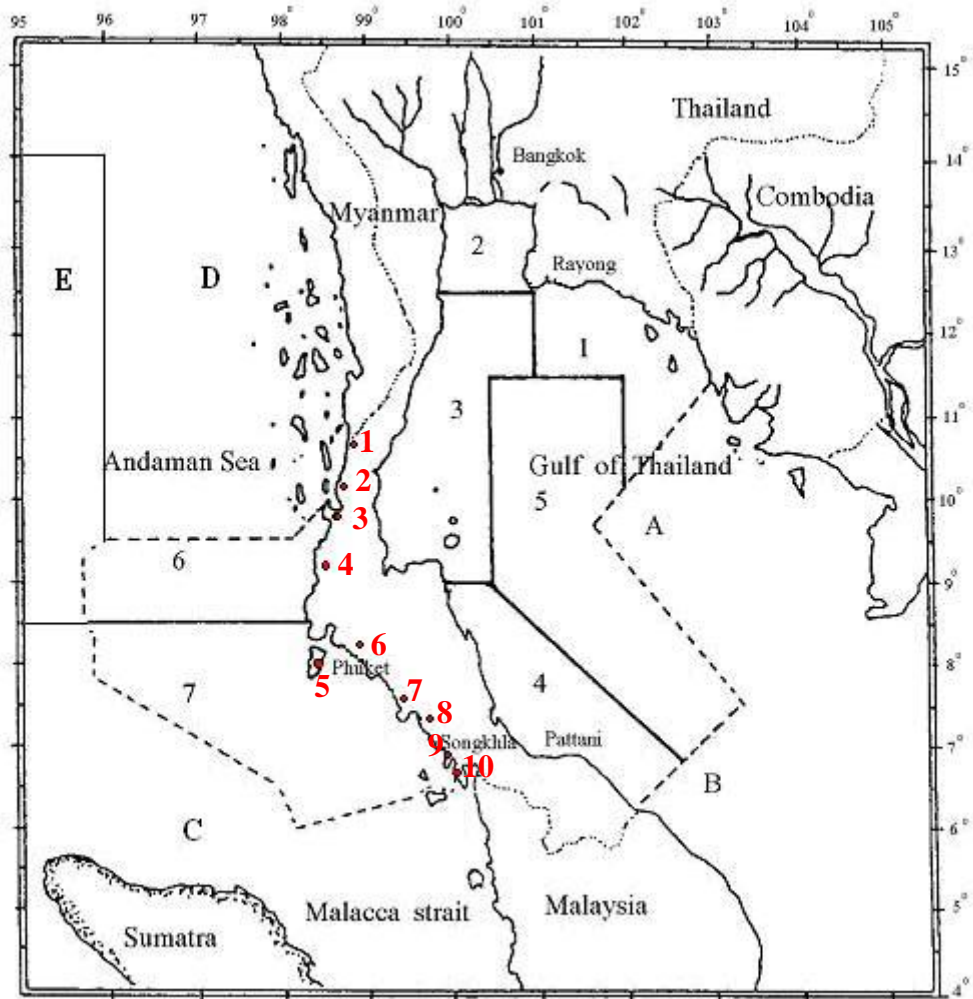
**Figure 6.** Catch per species per month in each landing places along the Andaman Sea, in 2009

**Reference**

Department of Fisheries (DOF). Marine Fisheries Statistic based on the sampling survey (1996-2008).Ministry of Agriculture and Cooperative, Government of Thailand (In Thai)

Department of Fisheries (DOF).Fisheries Statistics of Thailand (1985-2008).Ministry of Agriculture and Cooperative, Government of Thailand (In Thai)

**Annex 1.** Fishing grounds and Landing place along the Andaman Sea.



1. Muang, Ranong Province
2. Kuraburi, Phang-nga Province
3. Takuapa, Phang-nga Province
4. Taimuang, Phang-nga Province
5. Muang, Phuket Province
6. Muang, Krabi Province
7. Kantang, Trang Province
8. Palian, Trang Province
9. La-nga, Satun Province
10. Munag, Satun Province