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اللَّهُمَّ صَلِّ وَسَلِّمْ عَلَى نَبِيِّكَ مُحَمَّدٍ



Tuna fishing trends in Iran with emphasis on Tropical Tunas (October 2011) Maldives

By : M-Akhondi

Deputy of DG Fishery Affairs

of Fisheries Organization IRAN

I present my lecture in 3 sections:

- 1- A brief description about fishing status in Iran
- 2- Tuna fishing trends in Iran with emphasis on Tropical Tuna
- 3- Data collection and processing system in Iran

Vessel No : In 2010

Total : 11893

Boats : 8682

Dahws : 3160

Ships : 45 Trawlers,
5 Purse siners , 1 Long liner .



Fisherman :

Total : 143,436

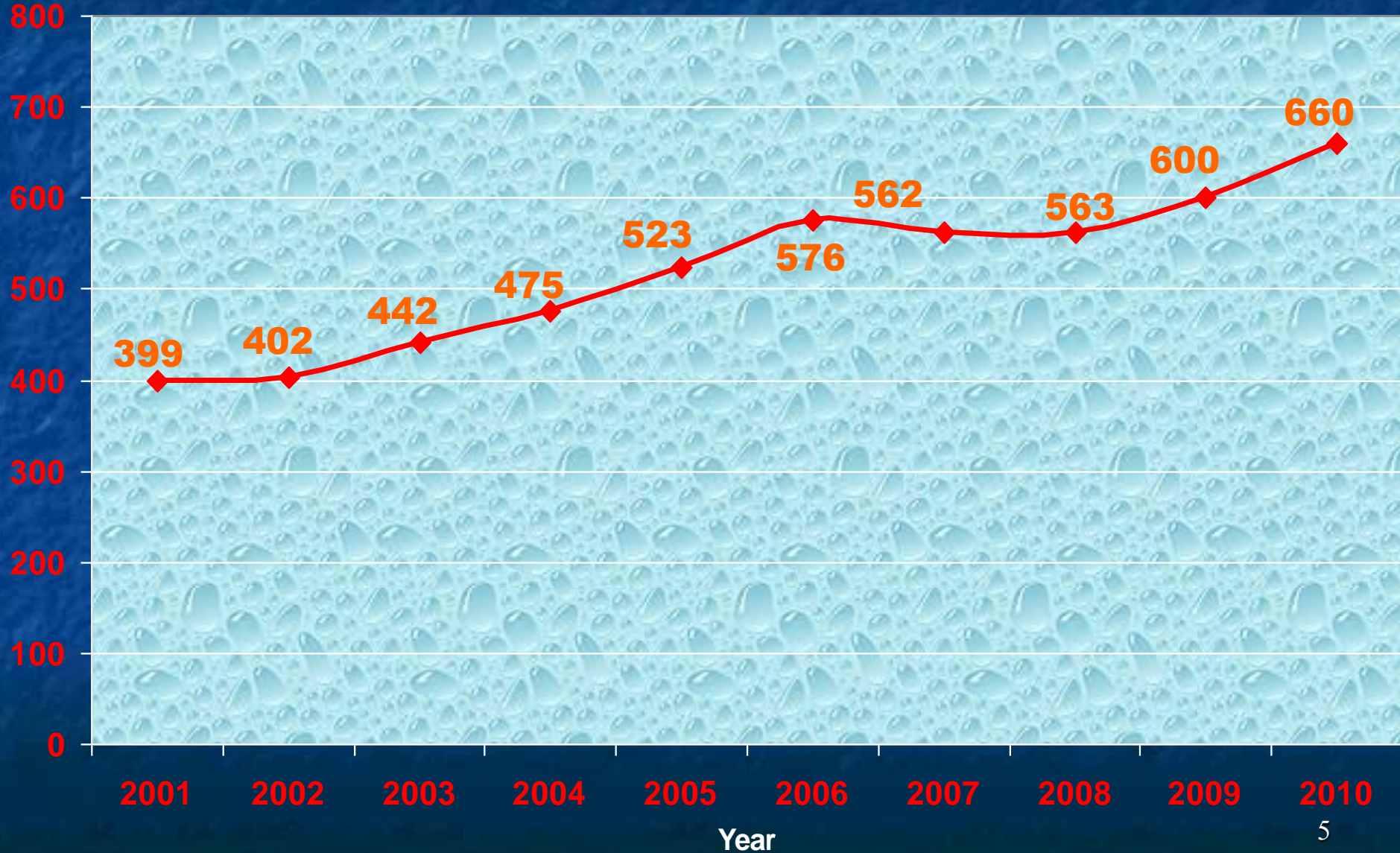
North : 12,494

South : 130,942

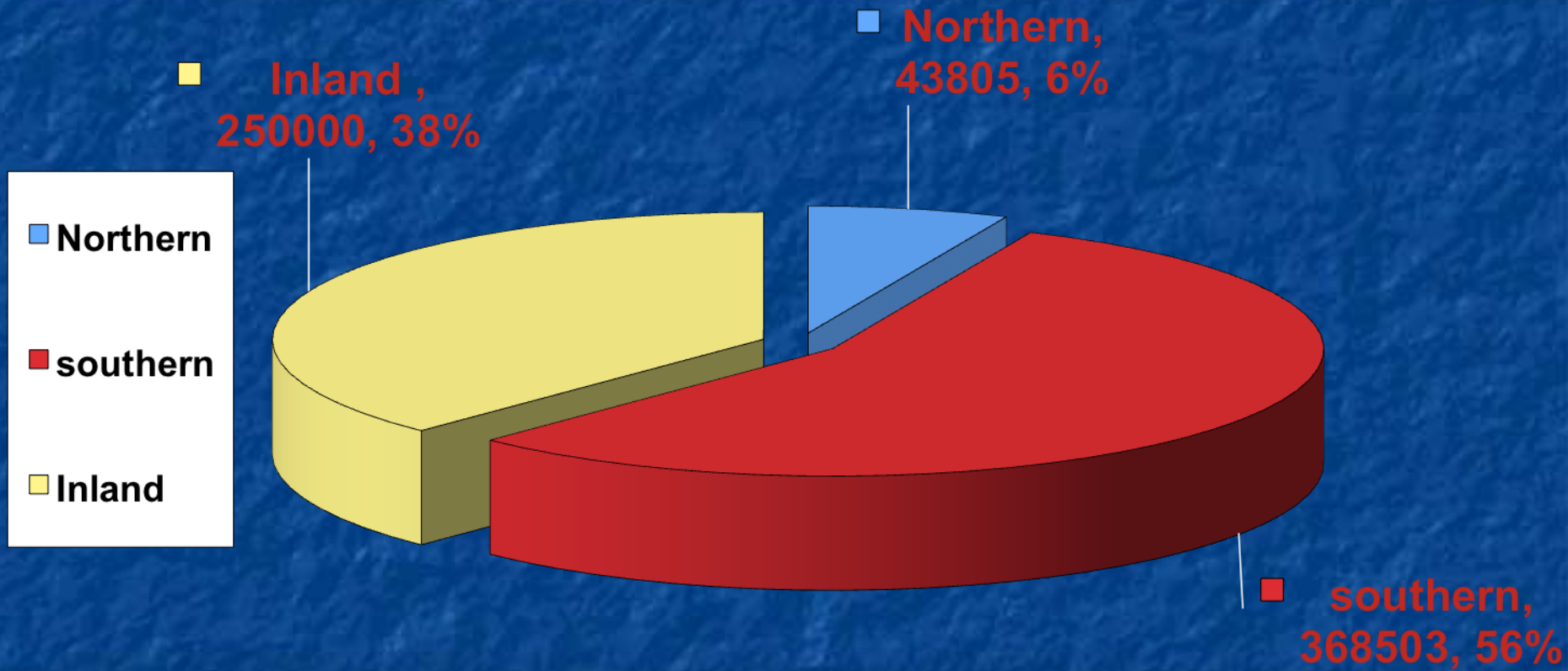


Total Fish production (2001-2010)

1000 Tonnes



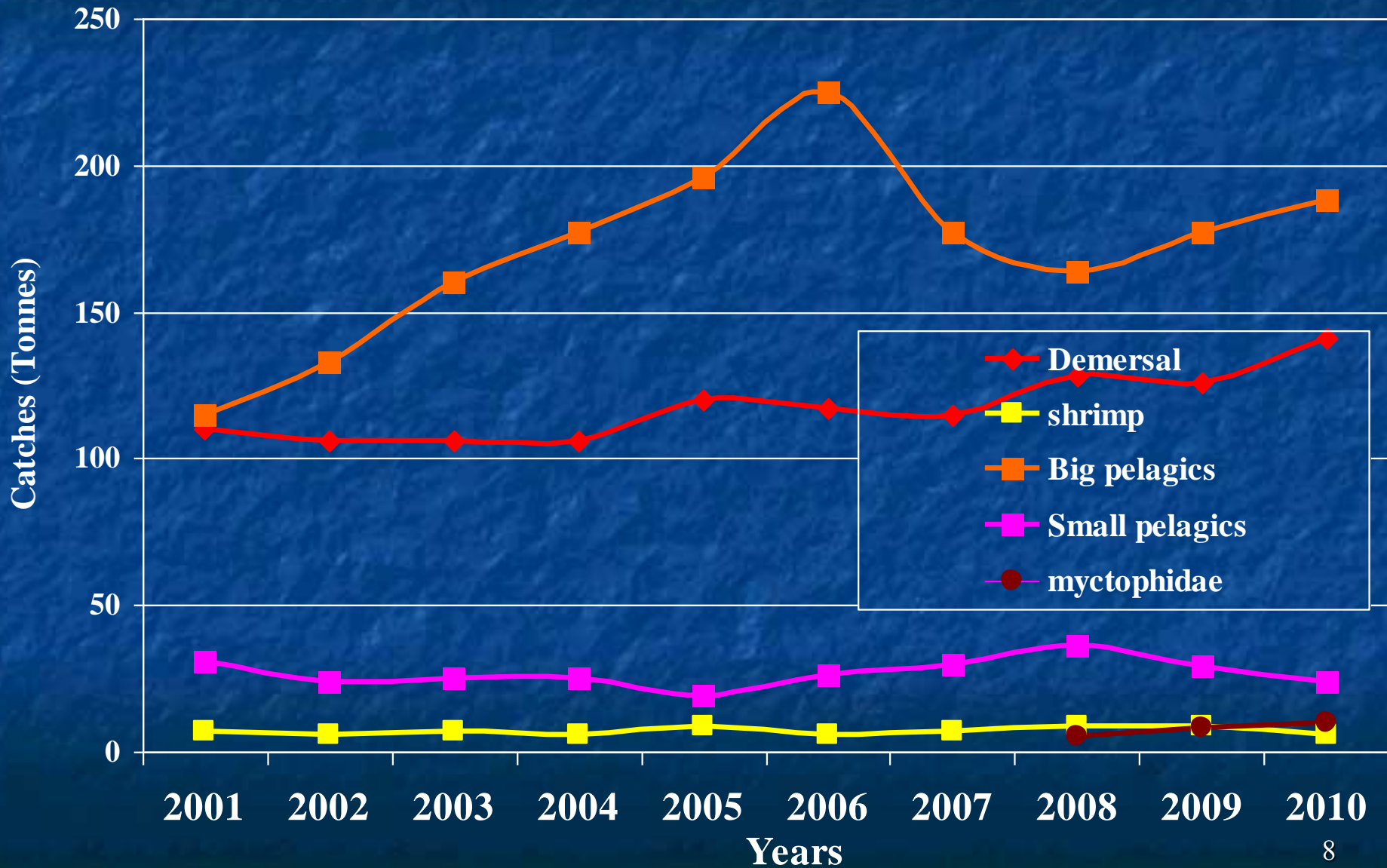
Production percentage for year 2010



Nominal catches from southern Waters (Persian Gulf & Oman Sea)

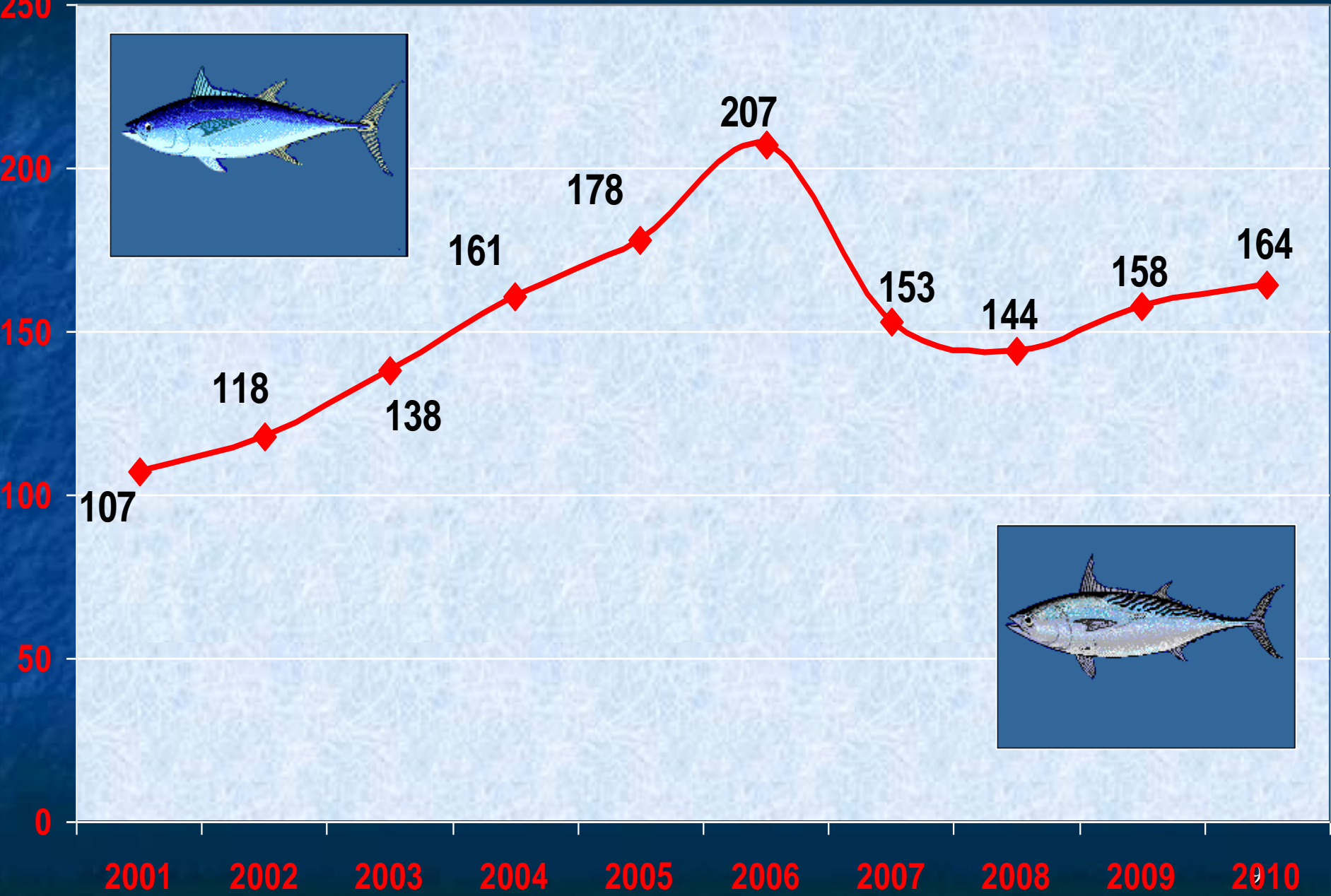


Nominal catches from southern Waters(Persian Gulf & Oman Sea)

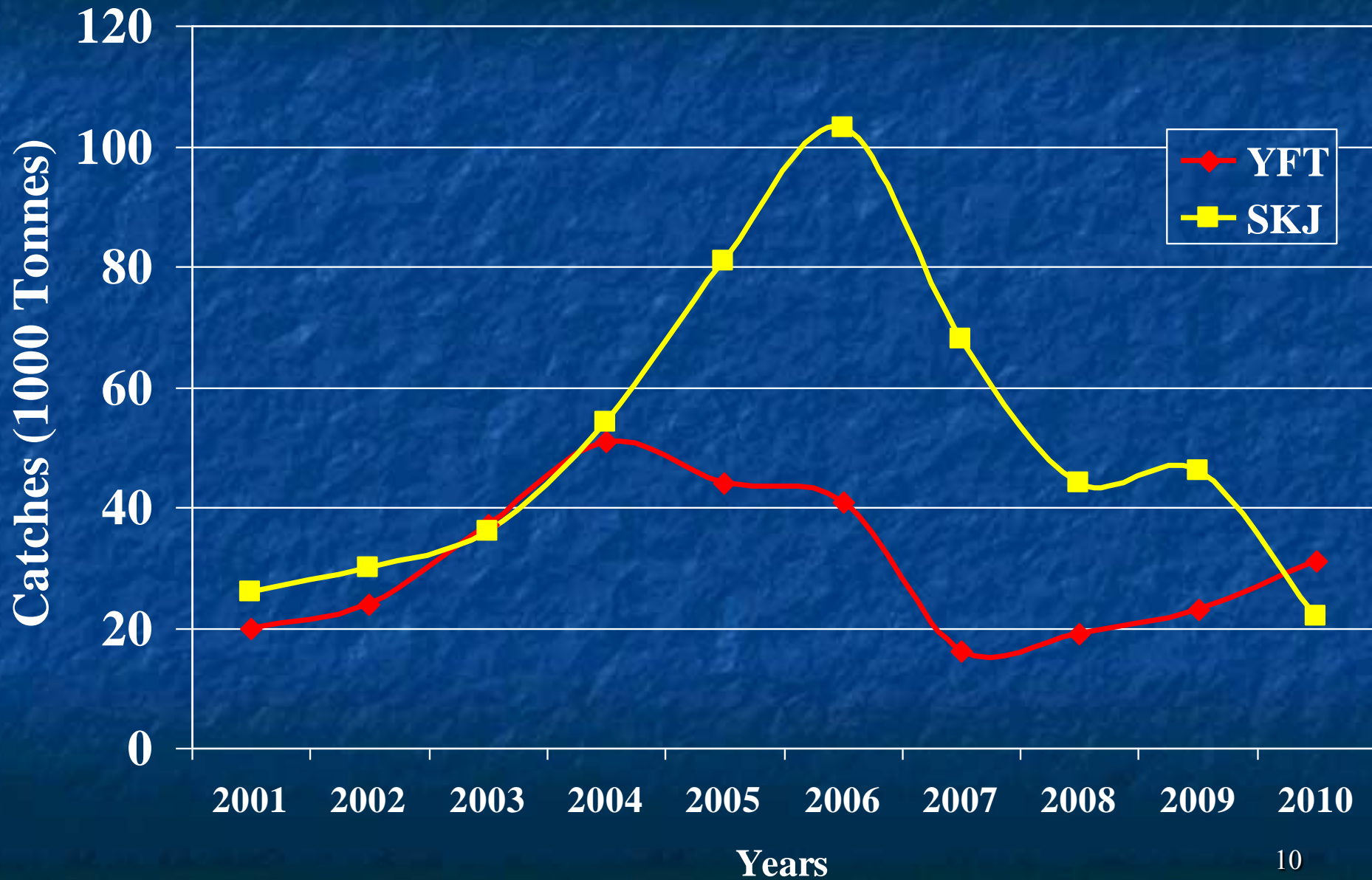


1000 Tones

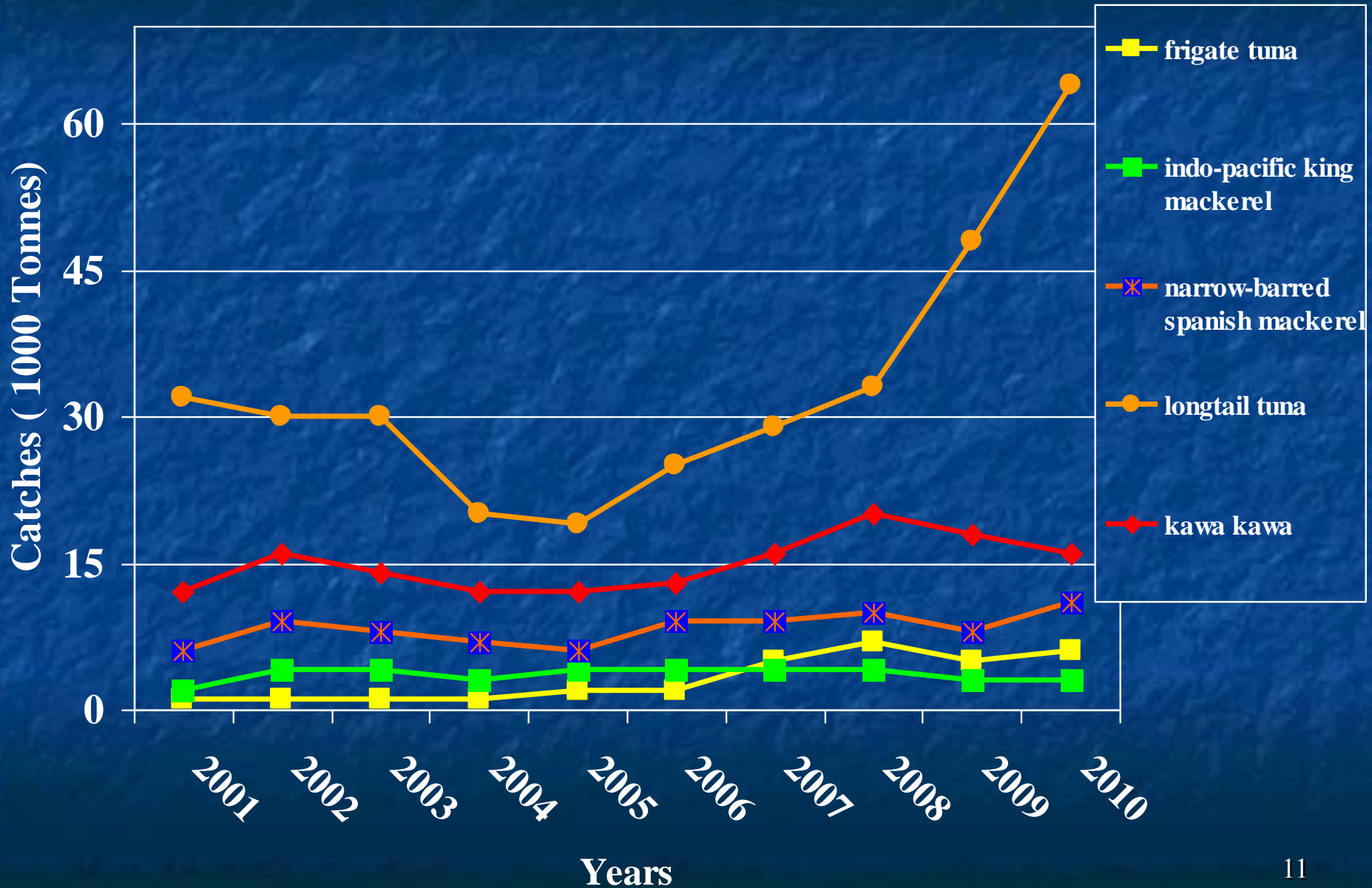
Nominal catches of Tuna & Tunalike Species (2001-2010)



Nominal catches of Tuna by Species



Nominal catches of Tuna & Tunalike by Species



Tones

Amount of Skipjack by month in 2010



Tones

Amount of Yellowfin by month in 2010



Tones

2010 Amount of Kawa kawa by month in



2010 Amount of longtail by month in

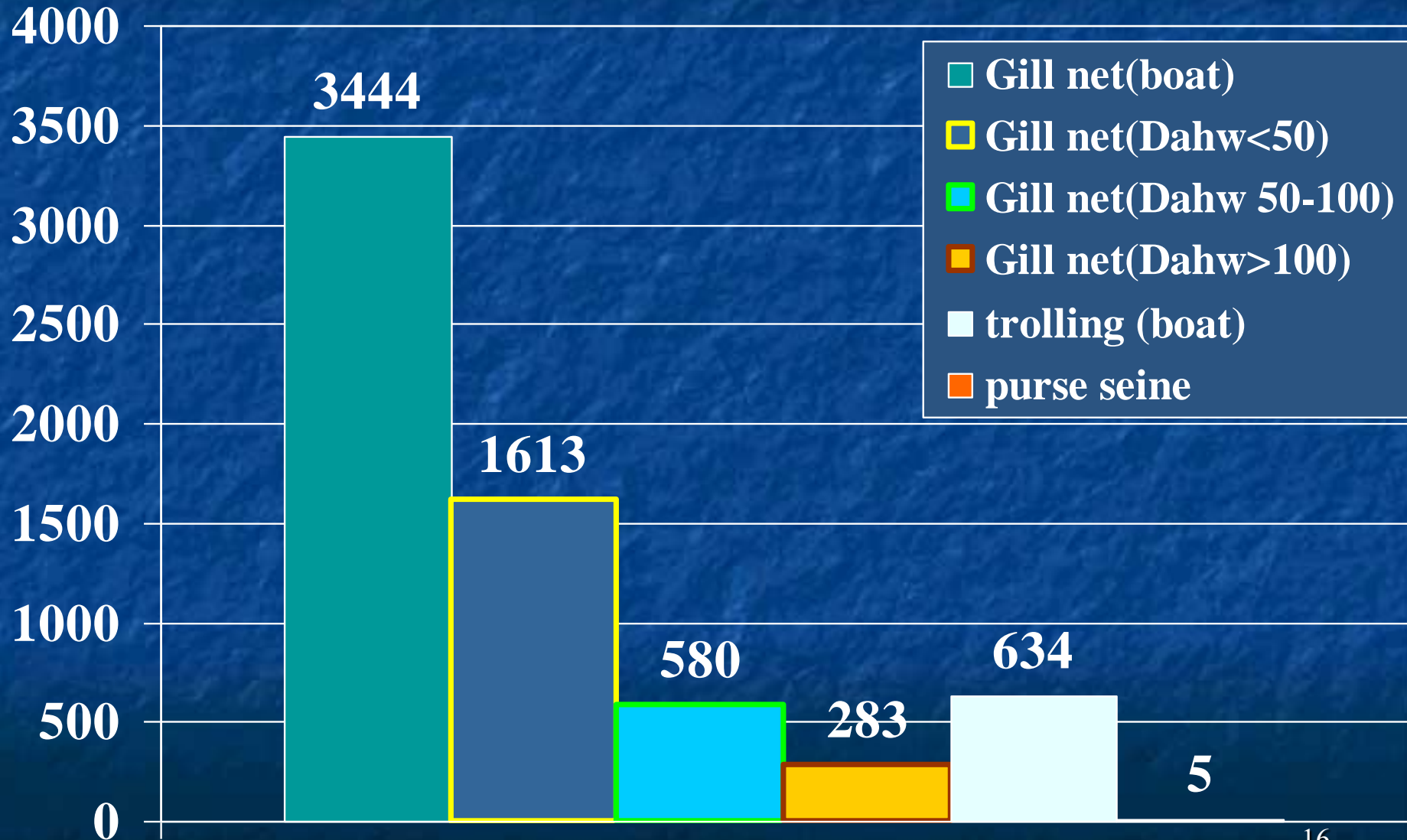
Tones

10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0

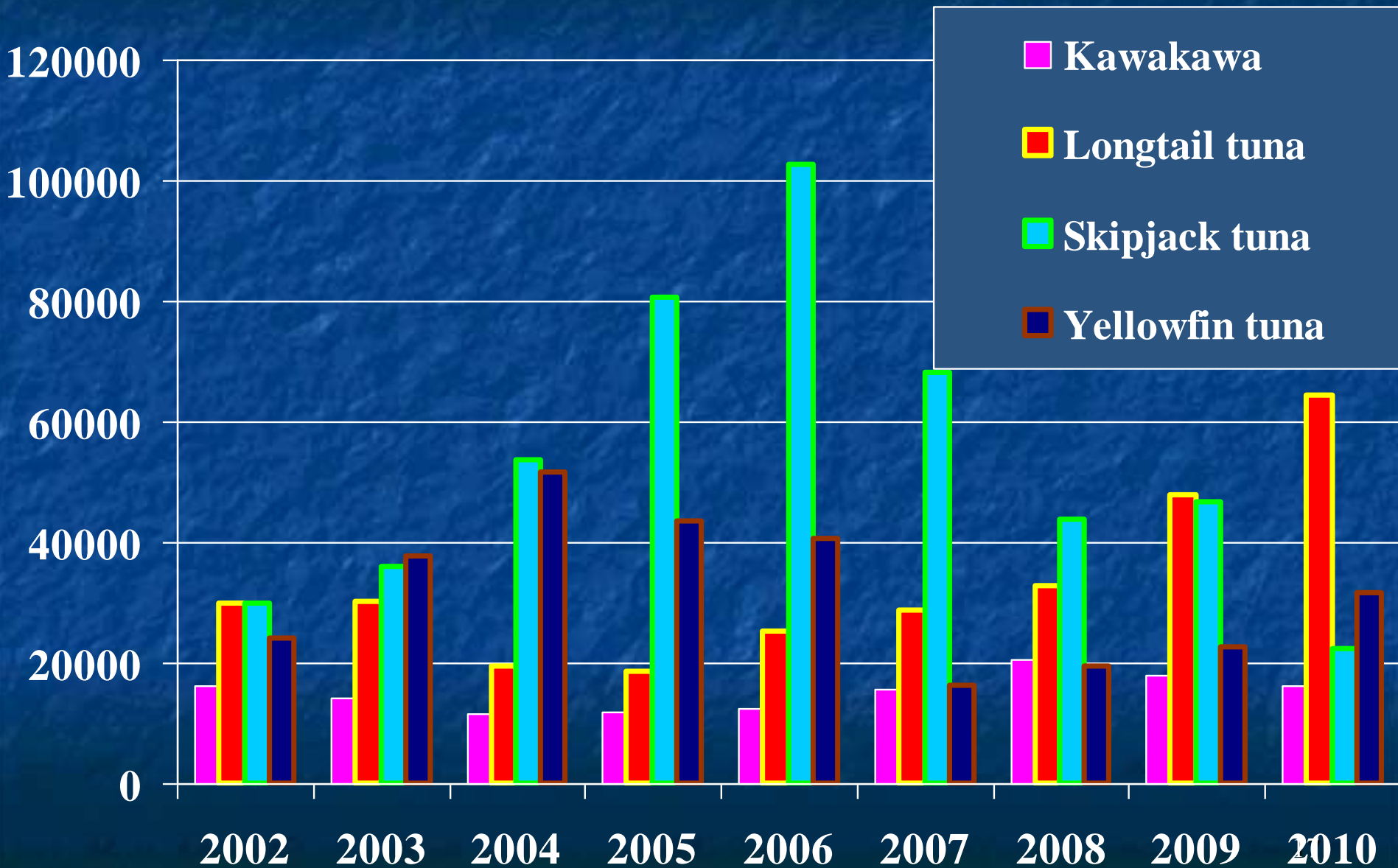


12 11 10 9 8 7 6 5 4 3 2 15 1

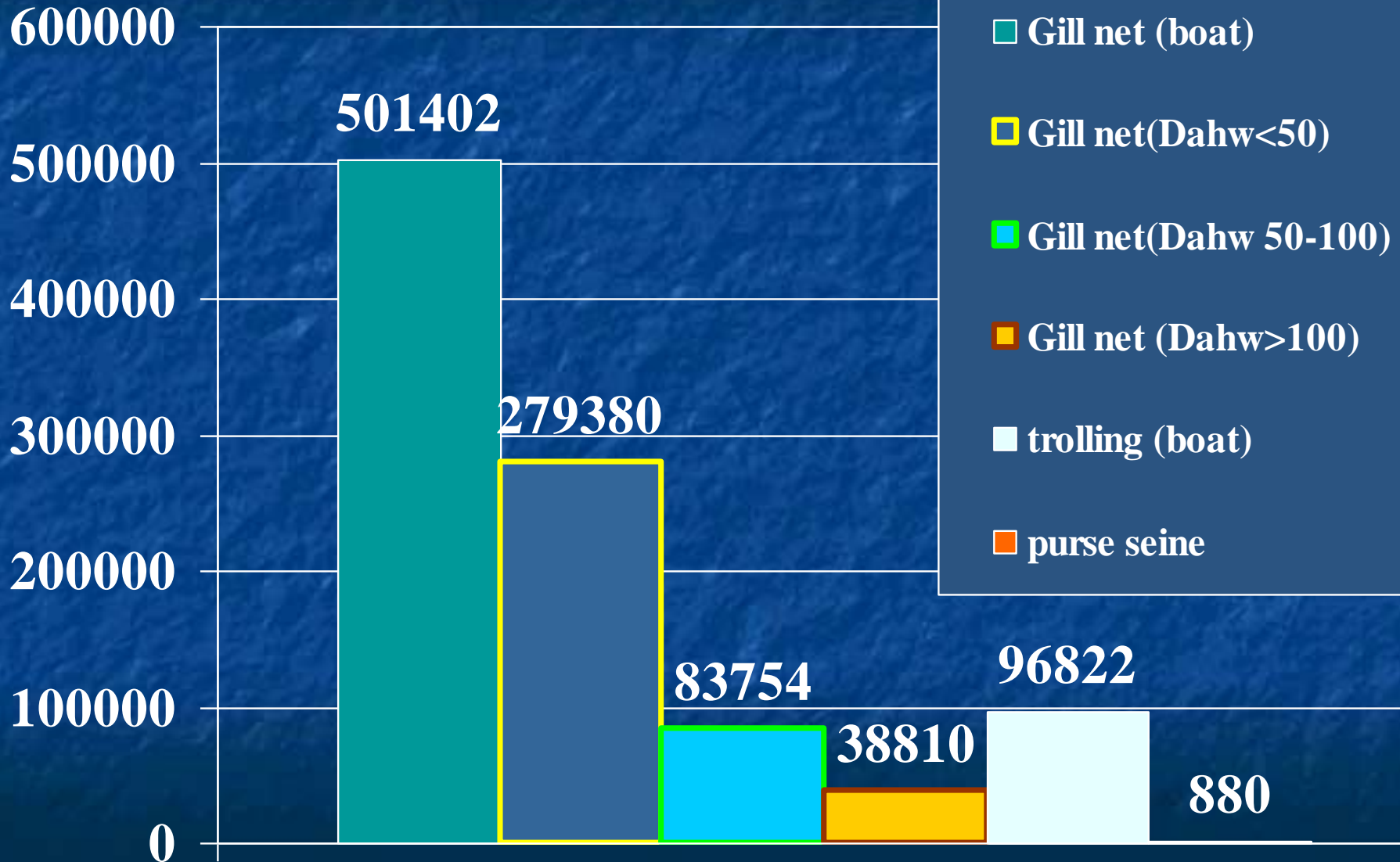
Number of fishing vessels to separate the different classes of Tuna & Tunalike in 2010



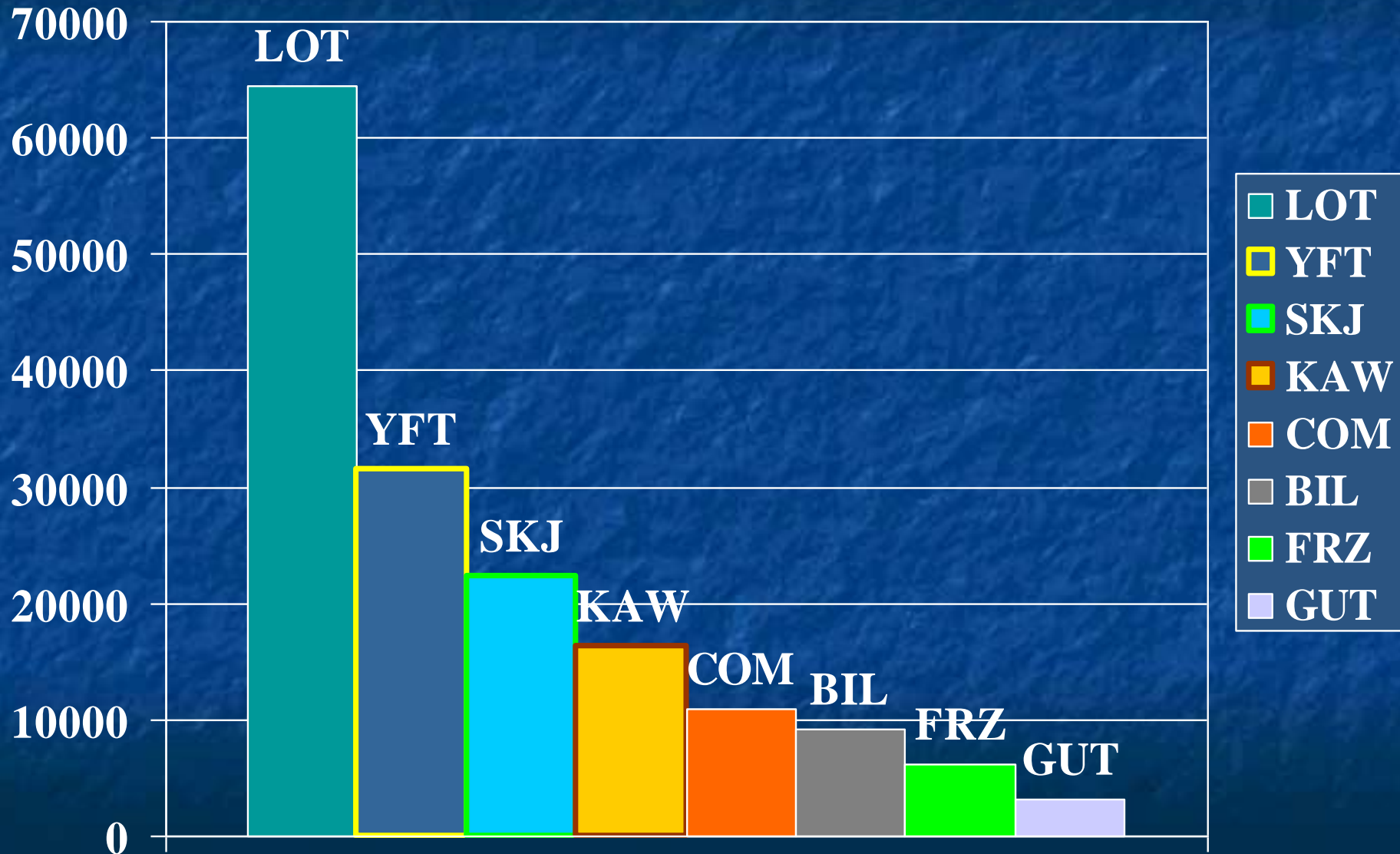
Nominal catches of Tuna & Tunalike by Species



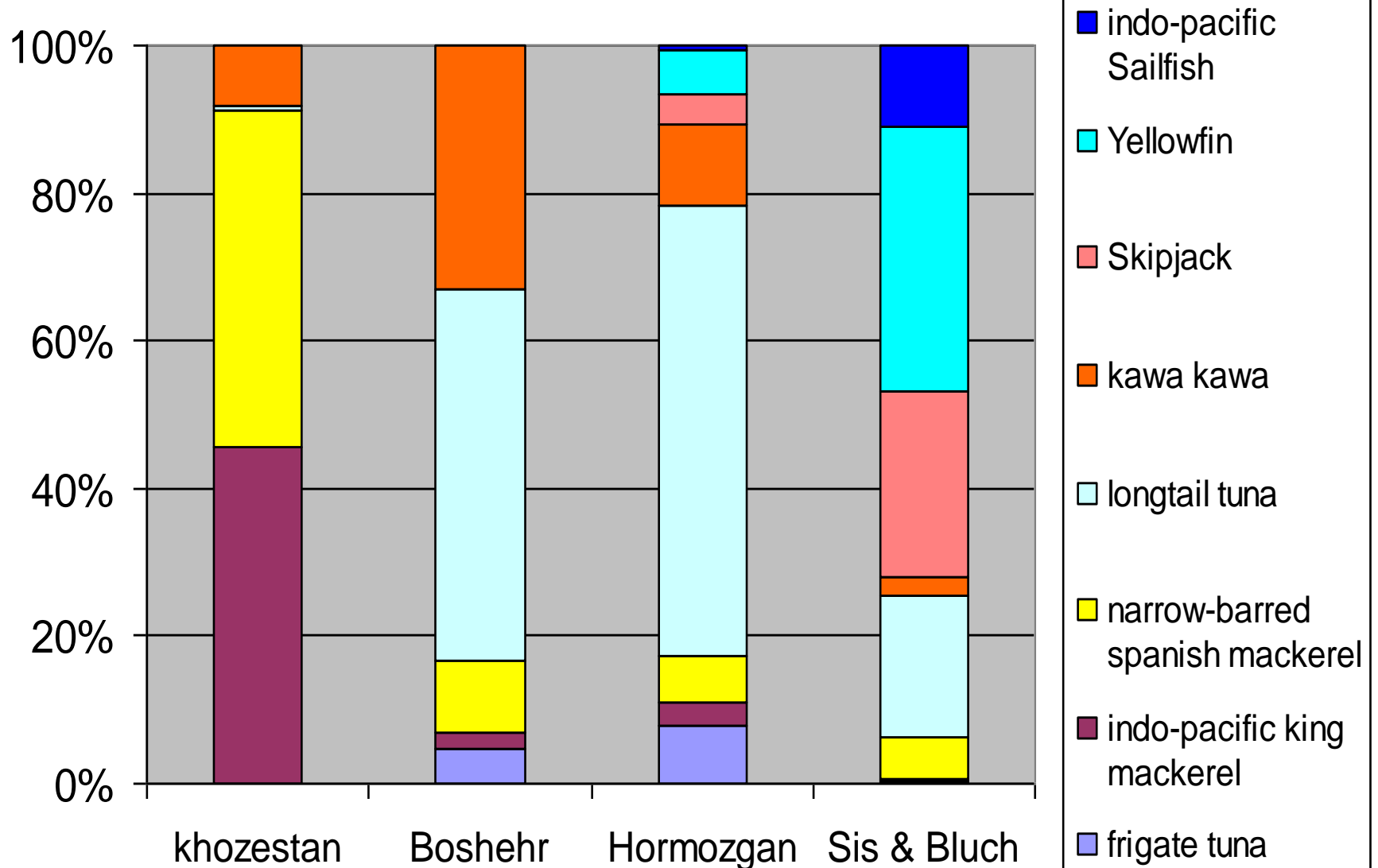
efforts to separate the different classes of Tuna & Tunalike in 2010 (Day)



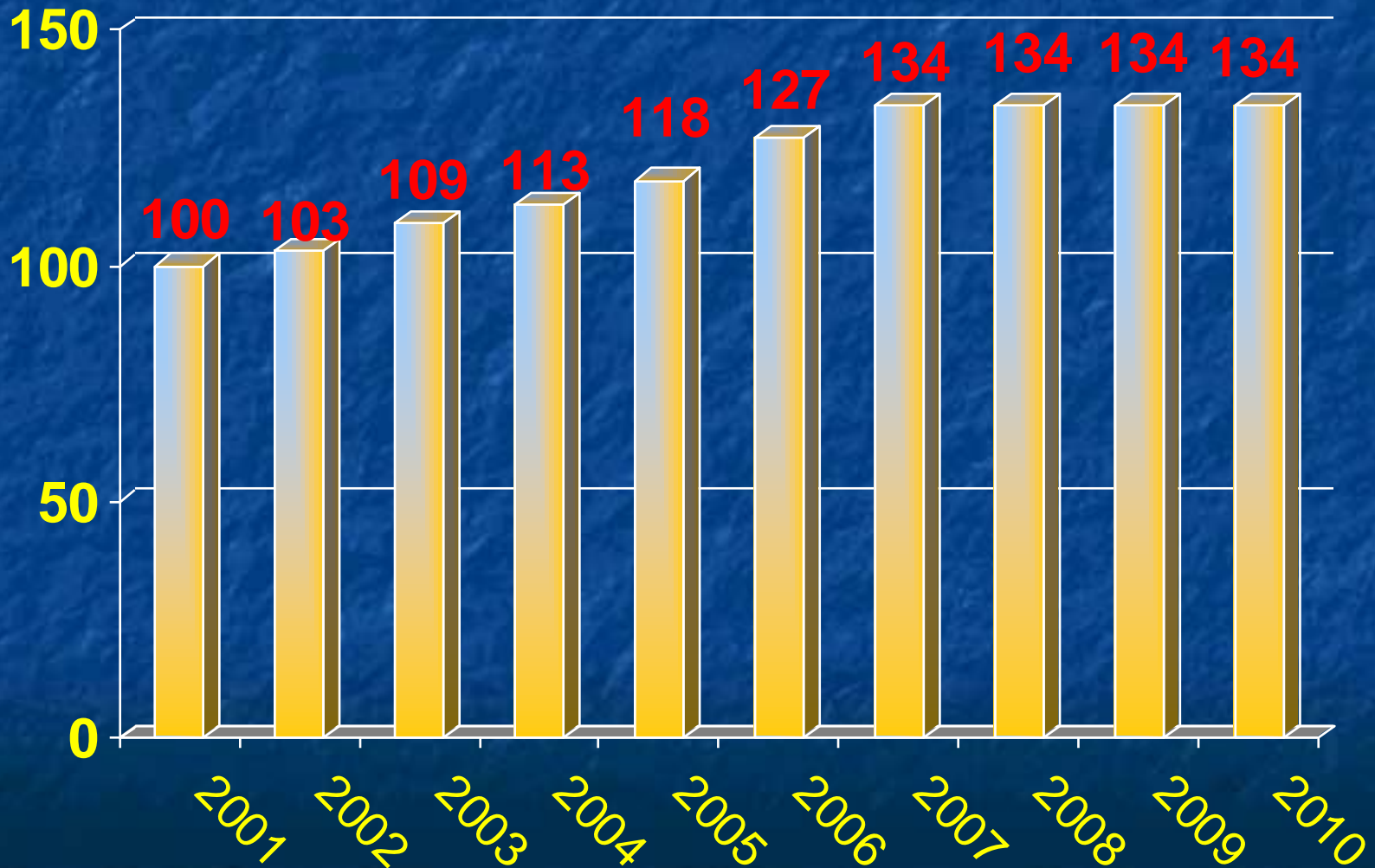
Nominal catches of Tuna by Species in 2010



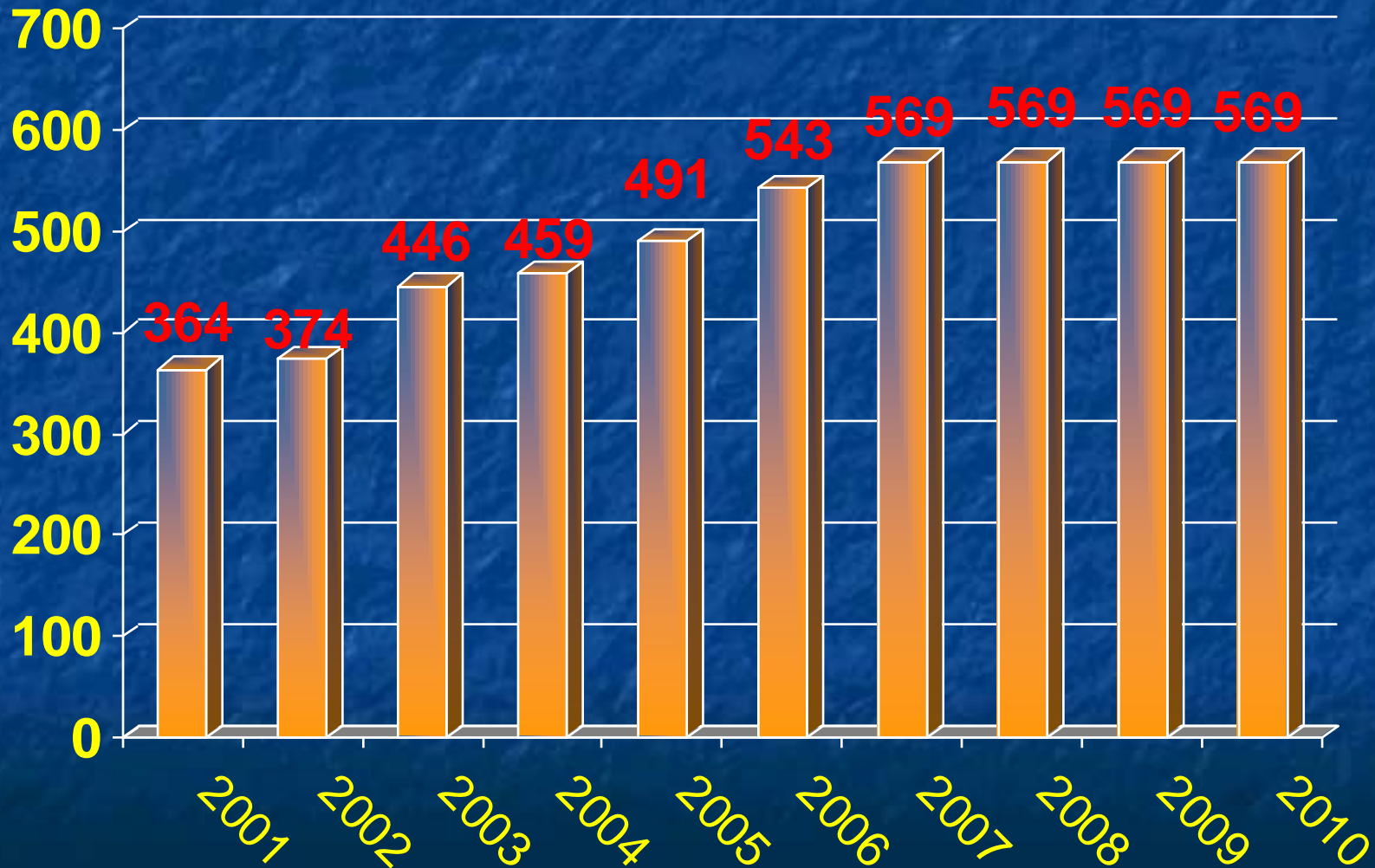
Species Composition (in percent) of tuna catches by province in 2010.



Number of Tuna Can factories



Tuna can production (million cans per year)



Fisheries Statistical Data collection system and Data processing method in Iran

Data Collecting System (Statistics)

There are 4 coastal provinces in southern waters which are fishing in their territorial waters with about 11000 vessels.

All of them needs fish license (permit) when they are going to see for fishing operation.

There are 63 basic landing centers in southern coastal waters. All of which, issue, fishing permit for all the vessels.

Fishing Permit form which is also used for total enumeration at all landing sites for statistics on effort

(Iranian fisheries stock company) (General dept. of Sistan & Baluchistan Fisheries)

Date:.....
No:.....

Vessel code:

Vessel Capacity:

Vessel type: Ship
 Dhow
 Boat

Code for fishing ground:

Fishing methods code:.....Fishing method.....

Catch type code.....Type of catch:

Consumed quantity of fishing gear :.....

Validation date from:to:

Fishing effort (per day).....

Captain code:.....

Captain
name:.....

Crew name:.....

1-.....

2-.....

3-.....

4-.....

5-.....

6-.....

7-.....

8-.....

9-.....

10-.....

11-.....

12-.....

13-.....

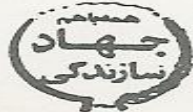
14-.....

15-.....

16-.....

17-.....

18-.....



شرکت سهامی شیلات ایران
اداره کل شیلات استان سیستان و بلوچستان

شماره سریال:

بسمه تعالی

تاریخ

شماره

کد ناخدا

نام ناخدا

ملواتان

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کد شناور

ظرفیت شناور

کشتی

لنج

قایق

نوع شناور

کد صیدگاه

کد روش صید

روش صید

کد نوع صید

نوع صید

مقدار ادوات مصرفی

مدت اعتبار از تاریخ

لغایت

معاونت صید و صنایع شیلاتی استان سیستان و بلوچستان

ناحیه

تلاش صید

روز

توضیحات

- تجاوز از محدوده فوق تخطی از قوانین صید و دستورات فنی شیلات محسوب گردیده و موجب تعقیب متخلف طبق قانون خواهد بود.
- از کلیه مأمورین انتظامی خواهشمند است همکاریهای لازم را مبذول فرمایند.

Fish permit include information about

fishing ground code, landing center code, vessel code, captain code, vessel capacity , permit serial no. ,

date of issue for permit , permitted duration of fishing operation at sea, fishing methods ,

number of fishing gears, fishing gears period at sea(per hours),

also at the back of license the exact date for vessel departure and entrance will be endorsed.

All of these information will be computerized by 20 operators in above mentioned provinces.

However *vessel activities* and *effort* information is available by total enumeration.

sampling methods for catch

For collecting catch data in those landing centers we use sampling method with a classification in two stages.

First stage is the classification of landing centers and choosing the sample landing centers.

Selected landing sites

The selection of sample landing sites is performed based on following provisions:

- Diversification of fishing methods-**
- High landings amount**
- Vessels with different capacities**
- Diversification of catch composition.**
- Locating at main and common fishing grounds region**

sampling methods for catch

Considering these points for each landing center, 35 out of 63 were have been choosen and can be used to raise information to other landing centers.

In each landing centers (42) there is one enumerator.

Second stage is the classification of landing centre in accordance with the capacity of different vessels in each landing centre.

because the importance of vessel capacity in catch amount for different species .

The size of artisanal vessels

Measured in GRT and they are classified in four categories for sampling purposes.

1-vessels less than 3 tonnes (Boats)

2-vessels from 3 to 20 tonnes

3-vessels from 21 to 50 tonnes

4-vessels >50 tonnes

Questionnaire sampling form used at landing sampling sites for statistics on catch and effort data for 51 species

Ministry of Jehadkeshavarzi
Iranian fisheries stock company
(Fish statistic Questionnaire)

QUESTIONNAIRE No

T.A – Vessel Specification & Fishing ground			T.B - Species name & amount of Catch					
Vessel Code:			Row	Species	Quantity (kg)	Row	Species	Quantity (kg)
Landing Centre Code:			1	Sawfish		28	Hilsa shad Indian shad	
Fishing ground Code:			2	Mullet		29	Parrotfish	
Longitude:			3	Pompano		30	Indian Mackerel	
Latitude:			4	Frigate mackerel		31	Jelly fish	
Fishing ground depth:			5	Malabar blood snapper		32	Indo-Pacific king Mackerel	
Date of departure:			6	Greater lizard fish		33	Flounder / Sole / Halibut	
Date of arrival:			7	Silver pomfret		34	Barracuda	
Fish license serial No:			8	Black pomfret		35	Shark	
T.c – Information related to Fishing Method & gear			9	Wolf-herring		36	Cat Fish	
Fishing Method	No. of gear used	Gear duration at sea	10	Crab		37	Gizzard Shad	
Trawl <input type="checkbox"/>	Bottom <input type="checkbox"/>		11	Threadfin		38	Yellow Fin tuna	
	Midwater <input type="checkbox"/>		12	Kawa Kawa		39	Trevally / Scad	
	Shrimp <input type="checkbox"/>		13	Flathead		40	Lobster	
Gillnet <input type="checkbox"/>	Bottom <input type="checkbox"/>		14	Sardine		41	Marlin / Sail fish	
	Drift <input type="checkbox"/>		15	Trevally / queen Fish		42	Cuttle fish	
	Encircle <input type="checkbox"/>		16	Snapper		43	Karut croaker	
<input type="checkbox"/> Trap/Cage			17	Ray		44	Shrimp / prawn	
<input type="checkbox"/> Longline			18	Cobia		45	Grouper	
<input type="checkbox"/> Hook			19	Japanese threadfin bream		46	Longtail tuna	
<input type="checkbox"/> Trolling line			20	Grunter		47	Skipjack tuna	
<input type="checkbox"/> purse-seine			21	Guitar fish		48	Hair tail / ribbon	
			22	Seabreams				
			23	Emperor				
			24	Tigertoot Croaker				
			25	Crookerlike fish				
			26	Narrow – Barred Spanish Mackerel			Total	
			27	Spme foots / Rabit fishes			Crew edible fish	

Enumerator name & signature

(Fill in date)

وزارت جهاد کشاورزی

شرکت سهامی شیلات ایران

پرسشنامه آمار صید

شماره پرسشنامه:

جدول ب - نوع و میزان صید

جدول الف - مشخصات شناور و صیدگاه

کد شناور:
کد تخلیه:
کد صیدگاه:
طول جغرافیایی:
عرض جغرافیایی:
عمق صیدگاه:
تاریخ عزیمت:
تاریخ مراجعت:
شماره سریال مجوز:

جدول ج - اطلاعات مربوط به روش و ادوات صید

ماددکاری	میزان ادوات مصرفی	روش صید	
		ادوات در دریا	ادوات در خشکی
		<input type="checkbox"/> کف	<input type="checkbox"/> ترال
		<input type="checkbox"/> میانی	
		<input type="checkbox"/> میگو	
		<input type="checkbox"/> کف	<input type="checkbox"/> گوشگیر
		<input type="checkbox"/> سطح	
		<input type="checkbox"/> محاصره‌ای	
		<input type="checkbox"/> گرگور/قفس	
		<input type="checkbox"/> رشته‌قلاب (لانگ لاین)	
		<input type="checkbox"/> قلاب	
		<input type="checkbox"/> قلاب‌کشی	
		<input type="checkbox"/> گردان پالادی (پورساین)	

ردیف	گونه	مقدار کیلوگرم	ردیف	گونه	مقدار کیلوگرم
۱	اره ماهی	۲۹	۲۹	گرچه ماهی	۳۸
۲	بیاه	۳۰	۳۰	گراف	۳۹
۳	پرستو	۳۱	۳۱	گیدر	۴۰
۴	تون منقوش	۳۲	۳۲	گیش	۴۱
۵	چمن	۳۳	۳۳	لاپستر	۴۲
۶	حسون	۳۴	۳۴	مارلین	۴۳
۷	حلوا سفید	۳۵	۳۵	ماهی مرکب	۴۴
۸	حلوا سیاه	۳۶	۳۶	میش ماهی	۴۵
۹	خارو	۳۷	۳۷	میگو	۴۶
۱۰	خرچنگ	۳۸	۳۸	هامور	۴۷
۱۱	دم‌ریش	۳۹	۳۹	هور	۴۸
۱۲	راشگو	۴۰	۴۰	بچه هور	۴۹
۱۳	زرده	۴۱	۴۱	هور مسقطی	۵۰
۱۴	بچه زرده	۴۲	۴۲	یال اسبی	۵۱
۱۵	زمین‌کن	۴۳	۴۳		۵۲
۱۶	ساردین	۴۴	۴۴		۵۳
۱۷	سارم	۴۵	۴۵		۵۴
۱۸	سرخو	۴۶	۴۶		
۱۹	سفره ماهی	۴۷	۴۷		
۲۰	سکلا	۴۸	۴۸		
۲۱	سلطان ابراهیم	۴۹	۴۹		
۲۲	سنگر	۵۰	۵۰		
۲۳	سوسن ماهی	۵۱	۵۱		
۲۴	شانگ	۵۲	۵۲		
۲۵	شمری	۵۳	۵۳		
۲۶	شوریده	۵۴	۵۴		
۲۷	شبه شوریده			جمع	
۲۸	شیر			سرترازونی ملوانان	

تاریخ تکمیل

نام و نامخانوادگی تکمیل‌کننده:

Content of questionnaire form

Vessel Code, vessel Capacity

Landing Centre Code

Fishing ground code (26 fishing ground)

Date of departure

Date of arrival

Fish permit serial No

Information related to Fishing method and gear (number and duration of the gear set in water)

Name of 51 Species and amount of catch



Species

51 categories of species/families are identified in the landings of artisanal vessels.

Further classified as demersal , large pelagic, small pelagic , myctophidae , shrimp and crustacean categories.

9 species of tuna and tuna-like species are identified in the Big pelagic category.

Sampling for estimating the amount of catches

Landing surveys are undertaken to obtain data on catches in the artisanal fisheries.

The methodology involves the sampling of 10% of the fleet according to taking into account,

Landing site, Vessel type with the type of gear they used.

Fishing area,

Forms for data collection

Fishing permit

Questionnaire form for sampling site

A staff of 63 are involved in the activities related to licensing, control and monitoring,

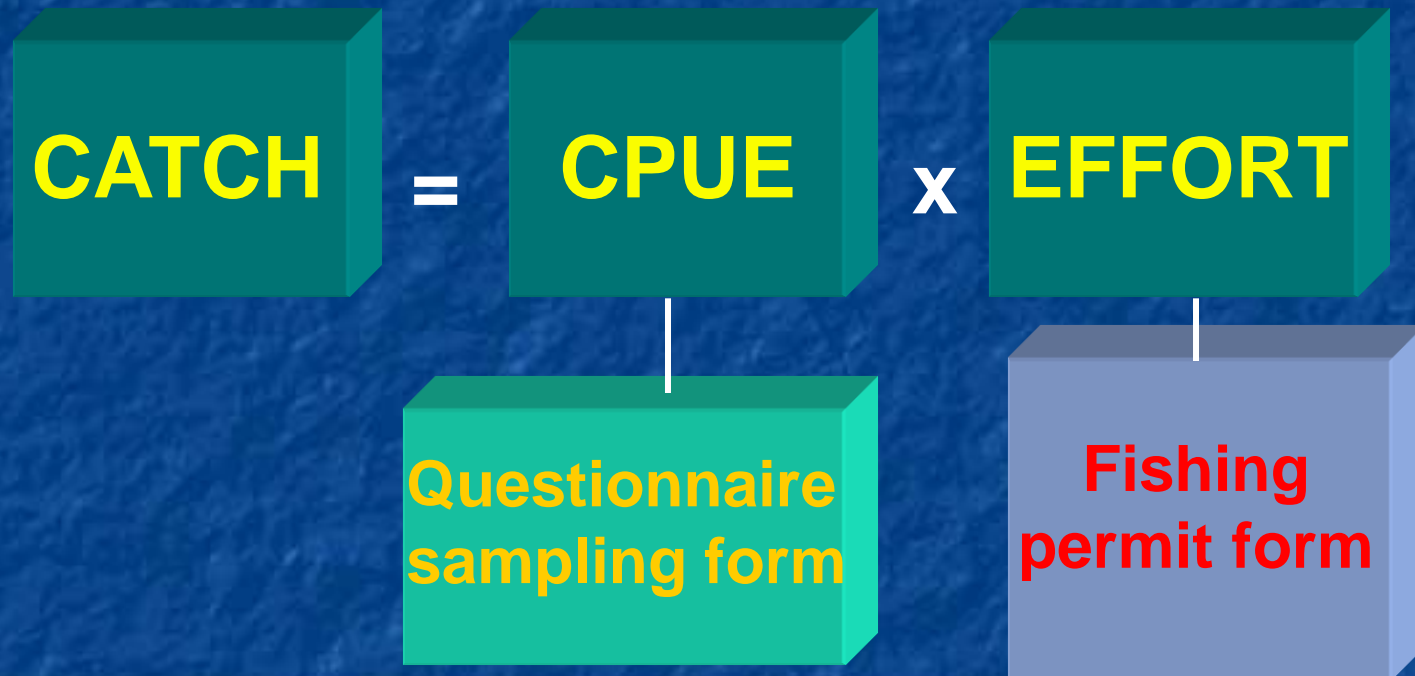
42 sampler(enumerator) permanently stay on landing sites which they collect the data and fill out the form, and also length frequency,

Calculating total catch

Based on questionnaire sampling form and the permit form the catches will be raised.

To increase accuracy, raising will be done based on month and per each landing centre and per vessel class

Sampling for estimating the amount of catches,



industrial vessels

Complete enumeration procedure was adopted in order to obtain all relevant information on catch and effort.

These vessels, mostly trawlers, are required to submit daily fishing logbooks on their operations

Inspections are undertaken at landing sites and observers are placed on board the vessels in order to obtain independent information as well as biological data on the species.

Verification of the data

Control of Permit form and Questionnaire form by the Head of statistical unit in relevant city

This kind of control will then be done in province centre through computer

Again this will be repeated in Headquarter in tehran

Cross Check by total census in one or two landing site .

Finalizing the Total catch

**Set A Scientific Committee (one in province and one in Tehran),
Including,**

1-Fishing Manager

2-The head of fishery satatistic

**3-Fishery research Centre
representative**

**4- Planning & Programing office
representative**

Reporting time

Three , six , nine month and yearly reporting will ready maximum two months later (for south)

software

**The software is called AMAR,
Which developed for the compilation,
processing and reporting of statistics.**

AMAR is based on FoxPro

**The database for fisheries catch and effort
statistics is available since 1997.**

**We are managing to use AMAR software
under DELFI in near further.**

نرم افزار آمار صید شایستگان

SIMAP

شناورهای صیادی

مجوزهای صید

آمار صید

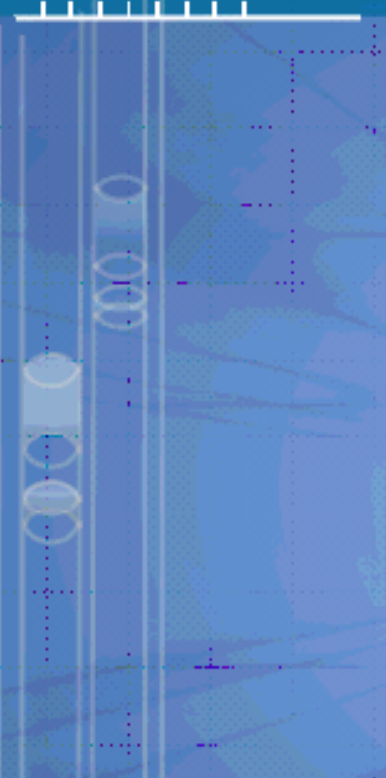
کشتی های ترالر

ساردین ماهیان

گزارشات

خروج

www.shsb.org
Shayestegan Software Base

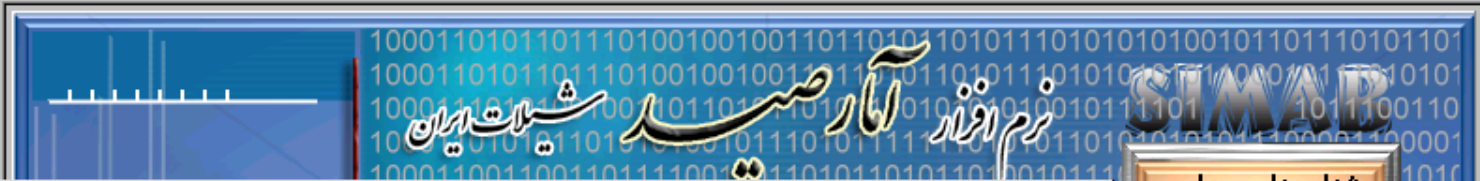


شرکت مهندسی
پایگاه نرم افزاری شایستگان

۰۶:۳۷:۵۳ پ.ظ

۱۳۸۳/۱۱/۱۹

1000110101001011101011111101010110101010101100001100001
00110111100110110101101011010010111010100100110101101010
00001001001101101010101010101010101010111010111000100100



- شناورهای صیادی
 - مجوزهای صید
 - آمار صید
 - کشتی های ترالر
 - سار دین ماهیان
 - گزارشات
 - خروج
- www.shsb.org
Shayestegan Software Base

نرم افزار آمار صید - پرسشنامه محل تخلیه - نسخه ۱.۱

پرسشنامه آمار صید

شماره پرسشنامه	تاریخ تکمیل	شماره پروانه	شماره مجوز	مرکز تخلیه
	//			

ش پرسشنامه: [] تاریخ تکمیل: []

مشخصات شناور و میدگاه:

شماره مجوز: [] شماره پروانه: []
 مرکز تخلیه: [] کد: []
 میدگاه: [] کد: []
 طول جغرافیایی: [] عرض جغرافیایی: []
 عمق مید: [] تاریخ عزیزت: [] تاریخ بازگشت: []

اطلاعات مربوط به روش و ادوات مید:

روش مید: [] کد: []
 میزان ادوات: [] ماندگاری ادوات: []

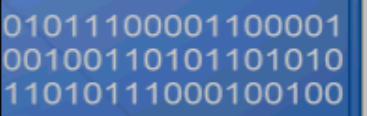
نوع و میزان مید:

کد ماهی	نام گونه	مقدار (kg)	روش صید

شماره پرسشنامه تاریخ تکمیل شماره پروانه شماره مجوز مرکز تخلیه

جمع کل: [] سرترازونی ملوانان: []
 نام و نام خانوادگی تکمیل کننده: []

افزودن تصدیق انصراف



کاربر جاری:

The type of report

Normally, possibility of 50 kind of routine report, for example:

Catch amount, based on landing site, province,

fishing ground, vessel class, different duration,

fishing method, species, Cpue (catch per day), cpue (catch per gear days), Cpue (catch per vessel) and etc .

Length Frequency data collection

Biometry collection procedures

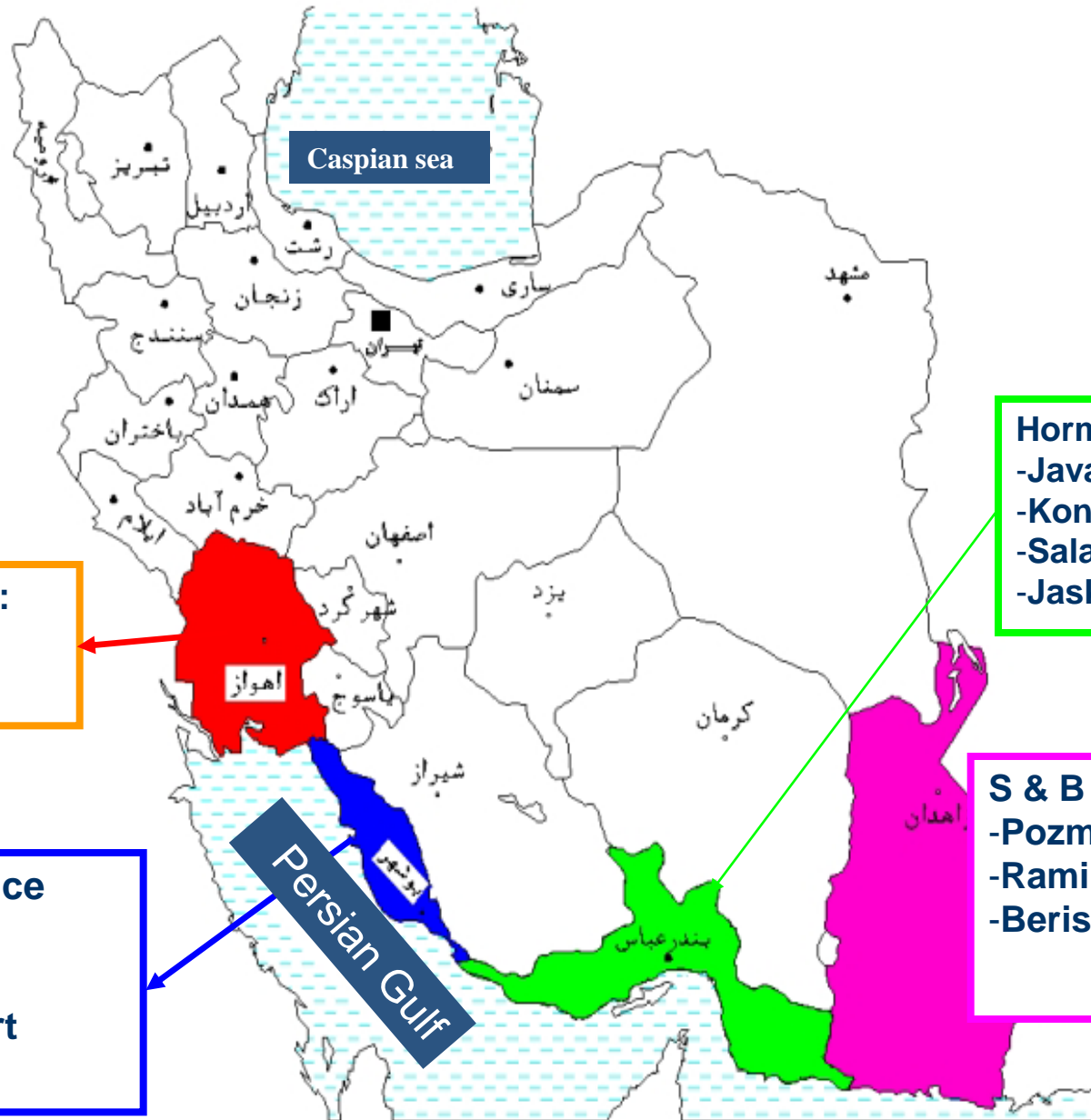
Ways of collecting biometry data

- **landing places biometry**
- **At-sea Biometry**

Collected data includes:

- **Length frequency (measuring Fork length)**
- **Weight frequency**

Sampling Landing centers in each coastal Provinces



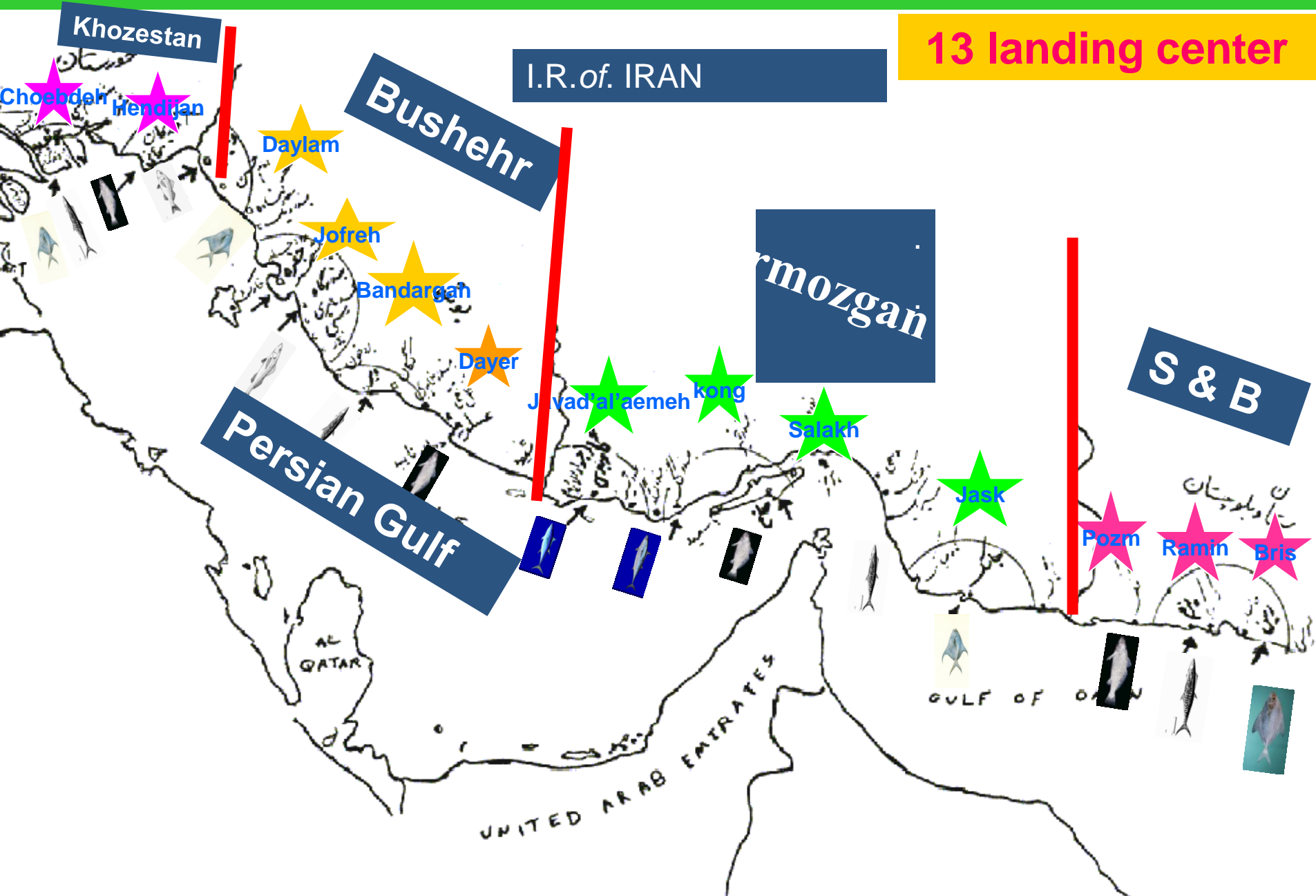
Khuzestan province:
-Choebdeh port
-Hendijan port

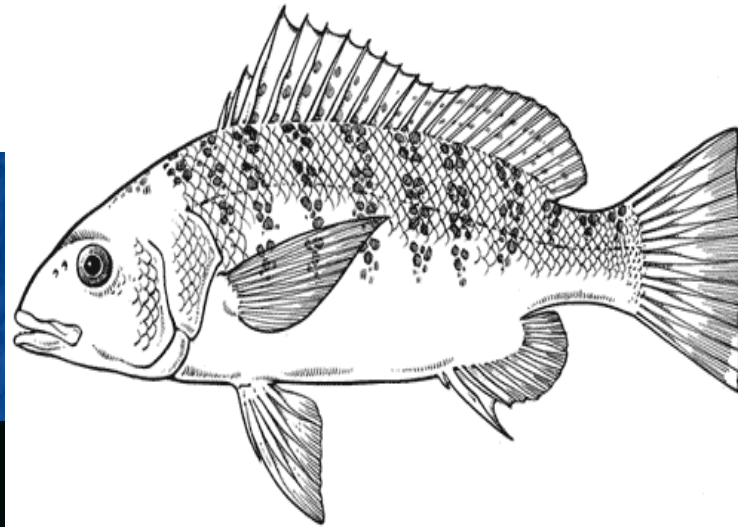
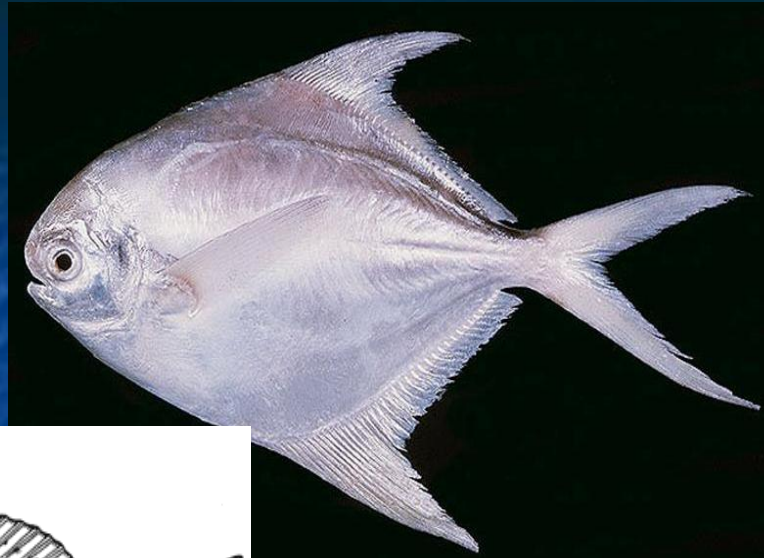
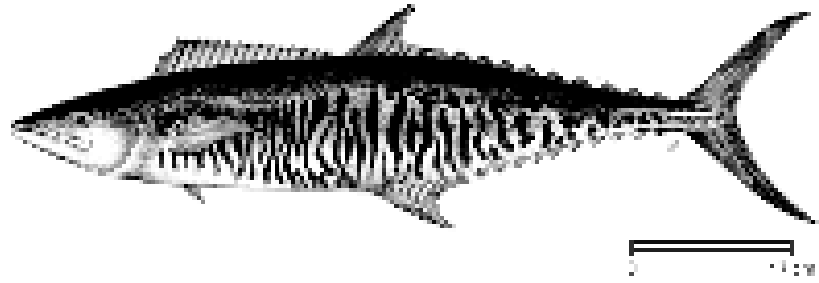
Hormozgan province
-Javad'al'aemeh port
-Kong port
-Salakh(Qeshm Island) port
-Jask port

Bushehr province
-Daylam port
-Jofreh port
-Bandargah port
-dayer port

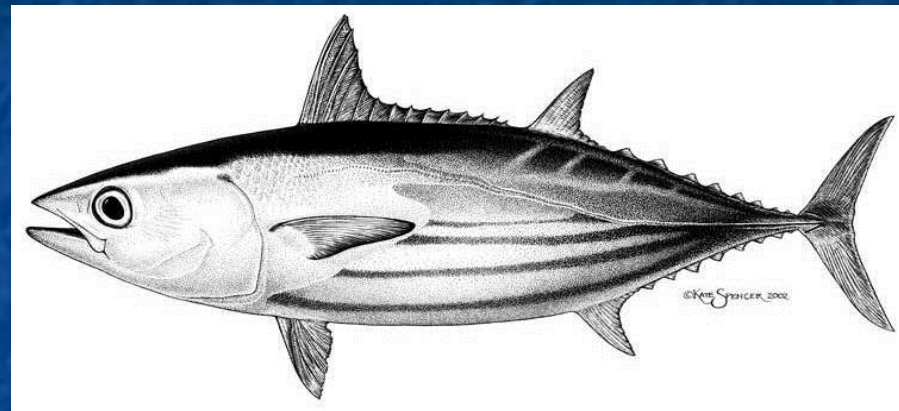
S & B province
-Pozm port
-Ramin port
-Beris port

Sampling station distribution along 2000 km coastline

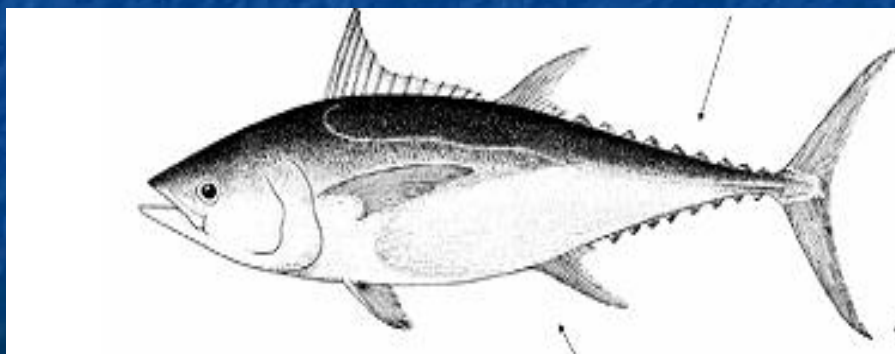




Tuna species



Yellowfin tuna (Thunnus albacares) Skipjack (Katsuwonus pelamis)



Longtail tuna (Thunnus tonggol) Kawakawa (Euthynnus affinis)

After data collection :

Input data into some statistical softwares like:

Spss

Excel

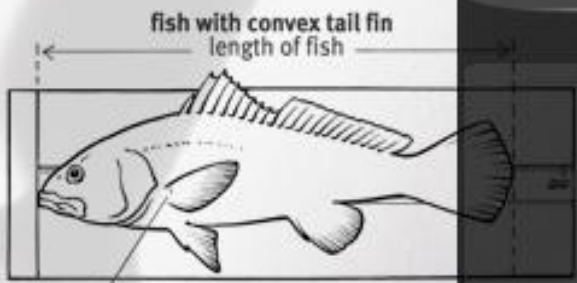
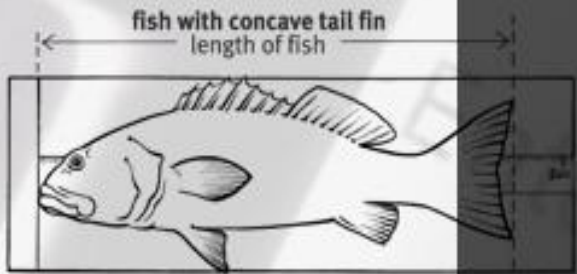
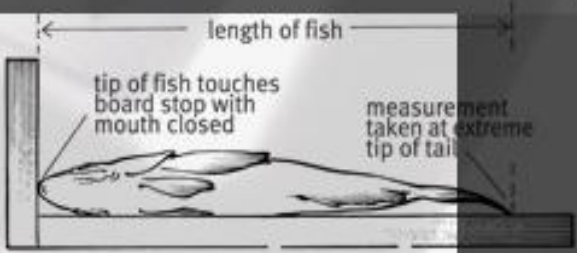
Fisat

Minitab

and the data will be processed & analyzed.

نرم افزار ثبت اطلاعات بیومتری

سازمان شیلات ایران



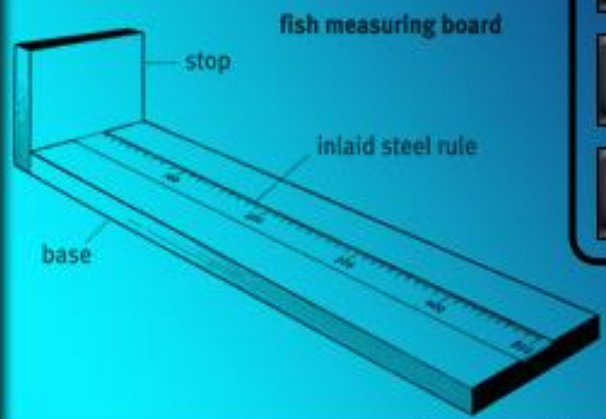
AM 11:06:57

1387/12/05

Southern fishes

northern fishes

kilka fishes



بیومتری

گزارشات

پارامترهای جنوب

پارامترهای شمال

پارامترهای کیلکا

مدیریت

کاربران

خروج

شرکت فنی و مهندسی پایگاه نرم افزاری شایستگان

*Thank you for your
attention*

