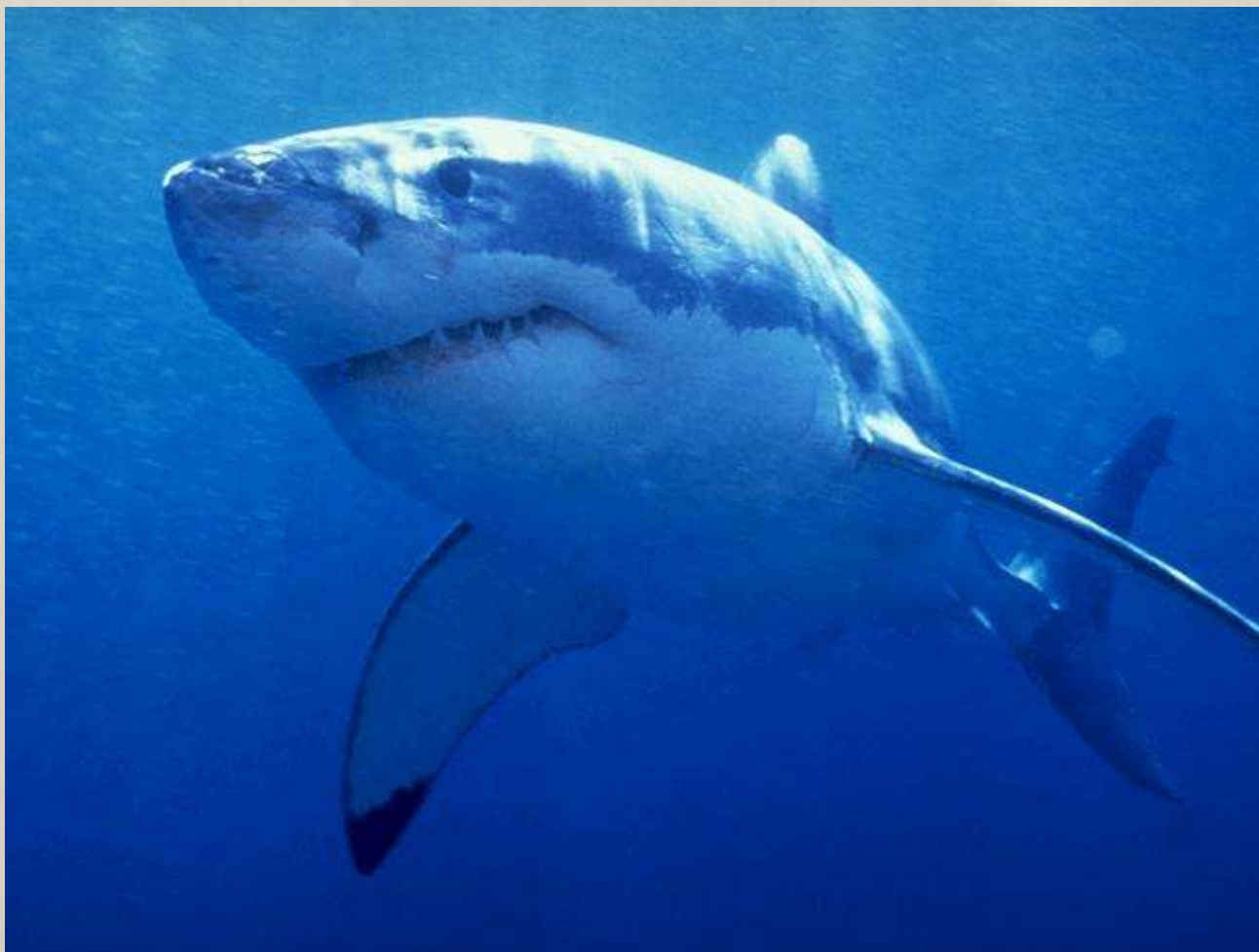


SHARKS





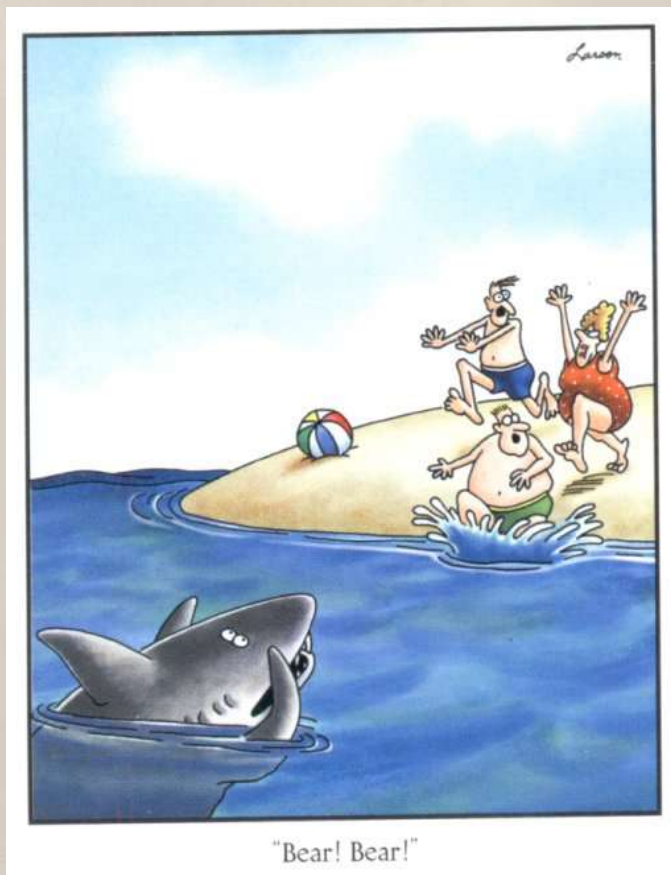
Classification



- Cartilaginous fish
- Ancient class – Chondrichyees
- About 370 species worldwide

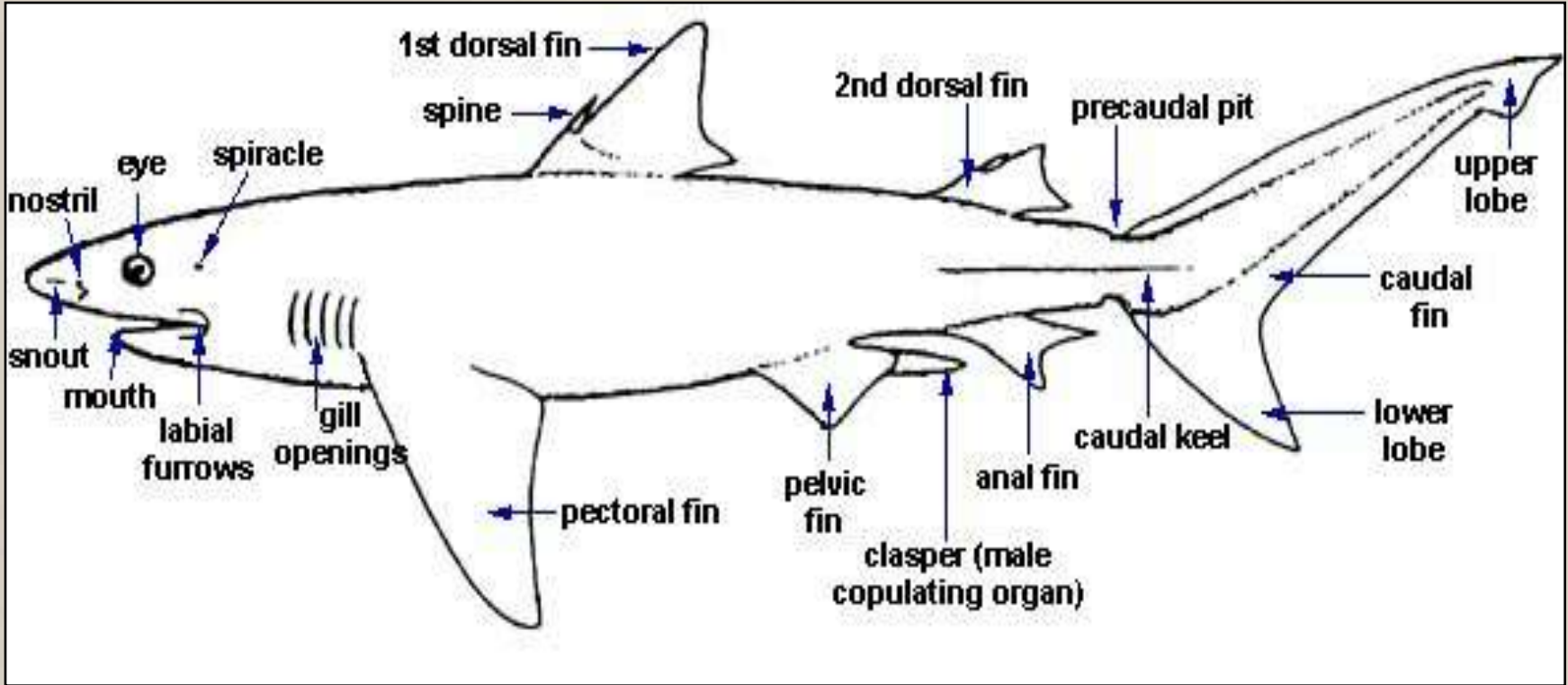


They must be doing something right...

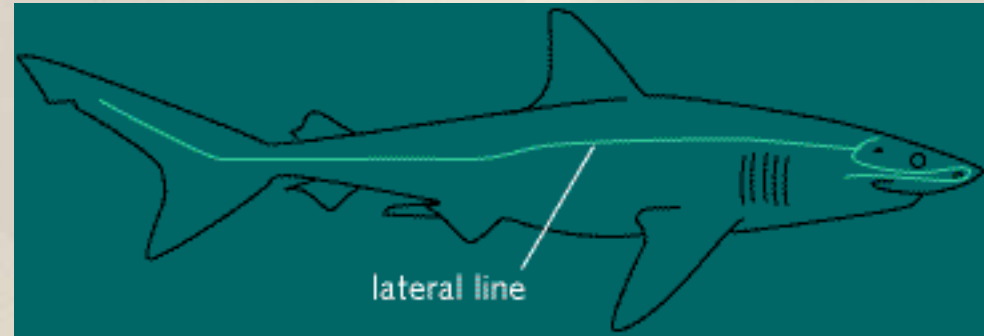
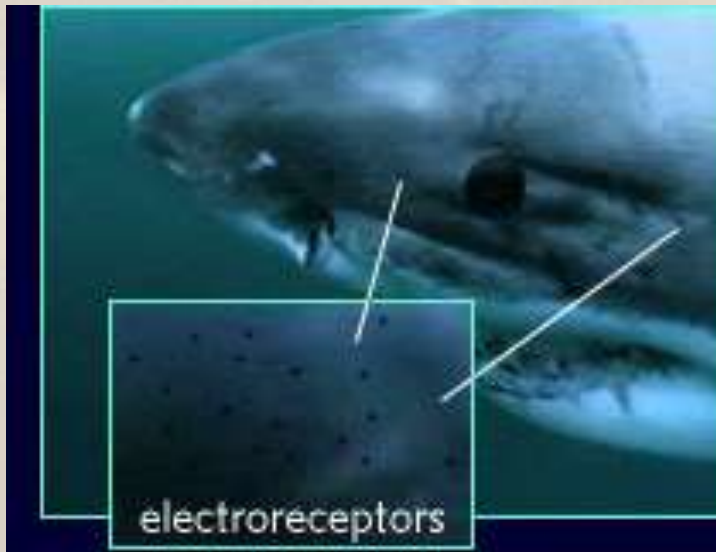




ANATOMY



SENSES

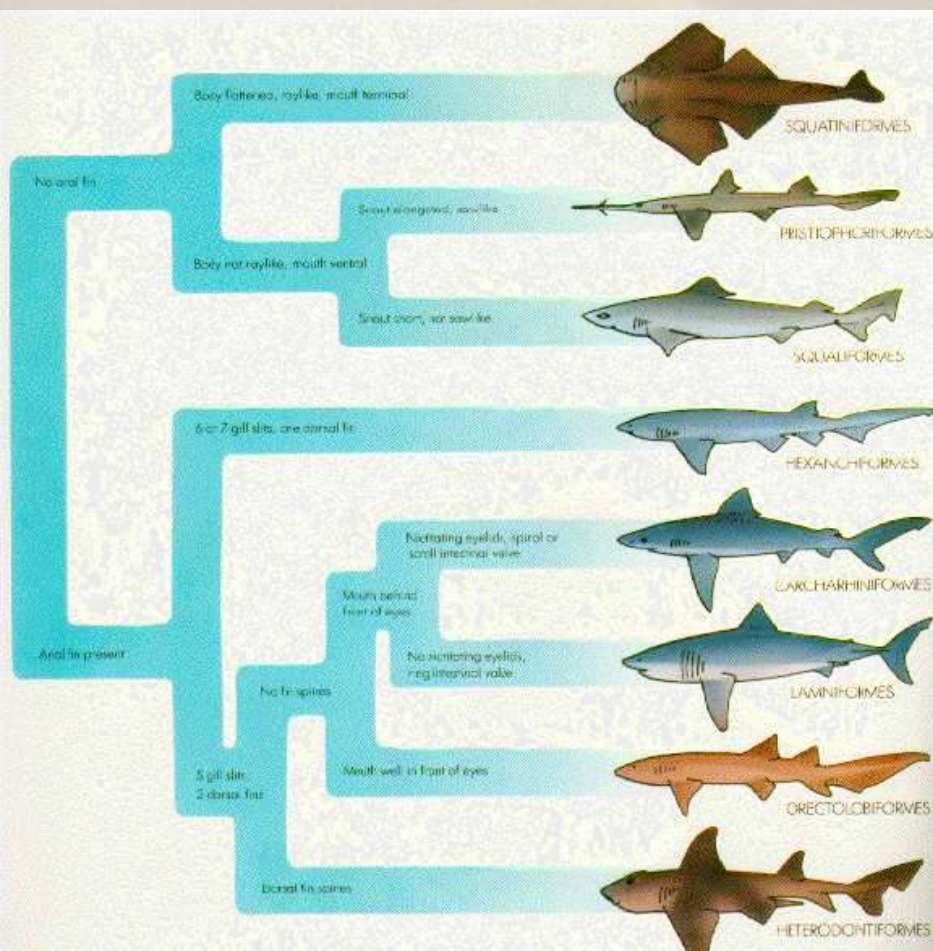


- Electoreception
- Feel
- Hearing
- Smell
- Sight





Mediterranean sharks



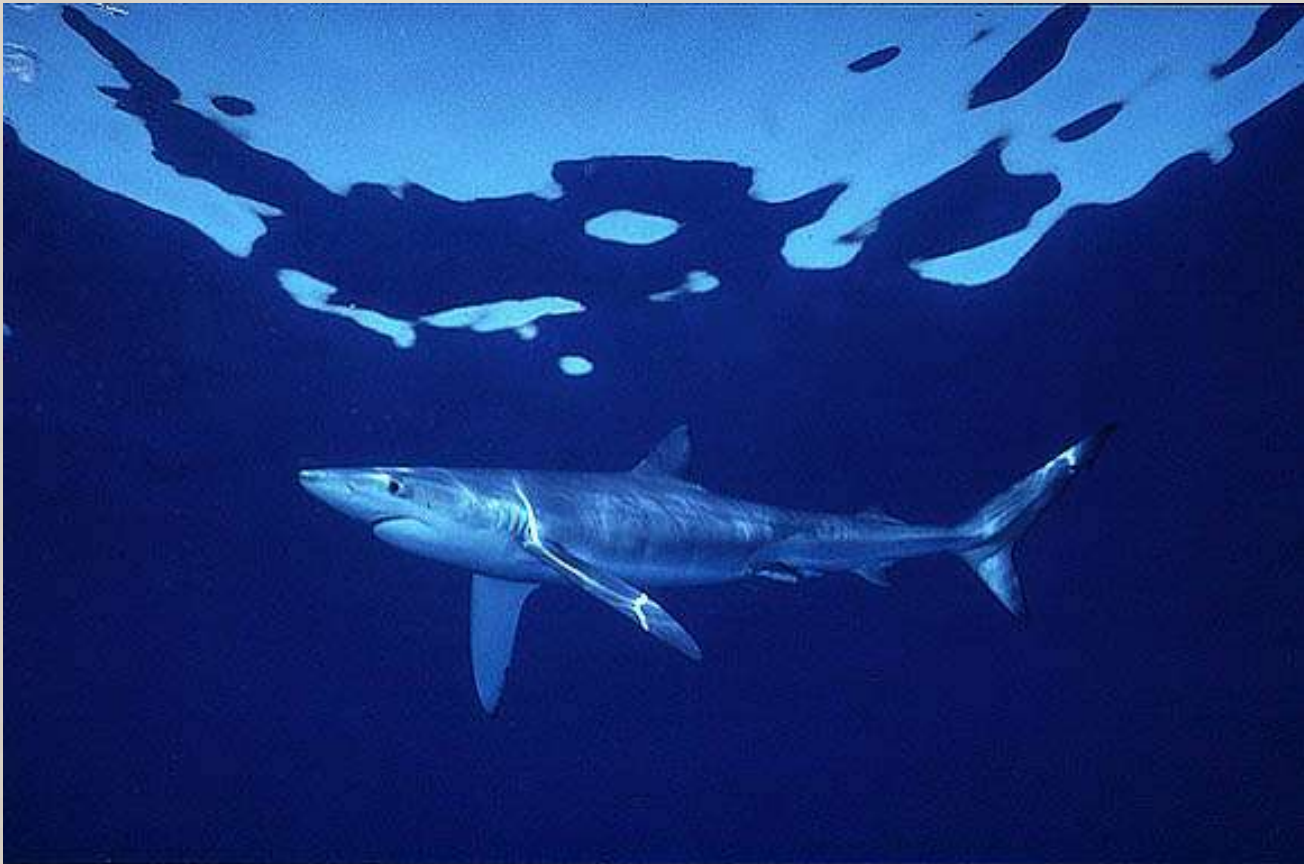
<i>FAUNAL SYNOPSIS, August 1997</i>	
Order Hexanchiformes:	3
Order Squaliformes:	11
Order Squatiniformes:	3
Order Lamniformes:	9
Order Carcharhiniformes:	21
CONFIRMED TOTAL:	47
Unconfirmed:	6
Possible Total:	53
Species exceeding 300cm TL:	16
Species potentially dangerous:	15



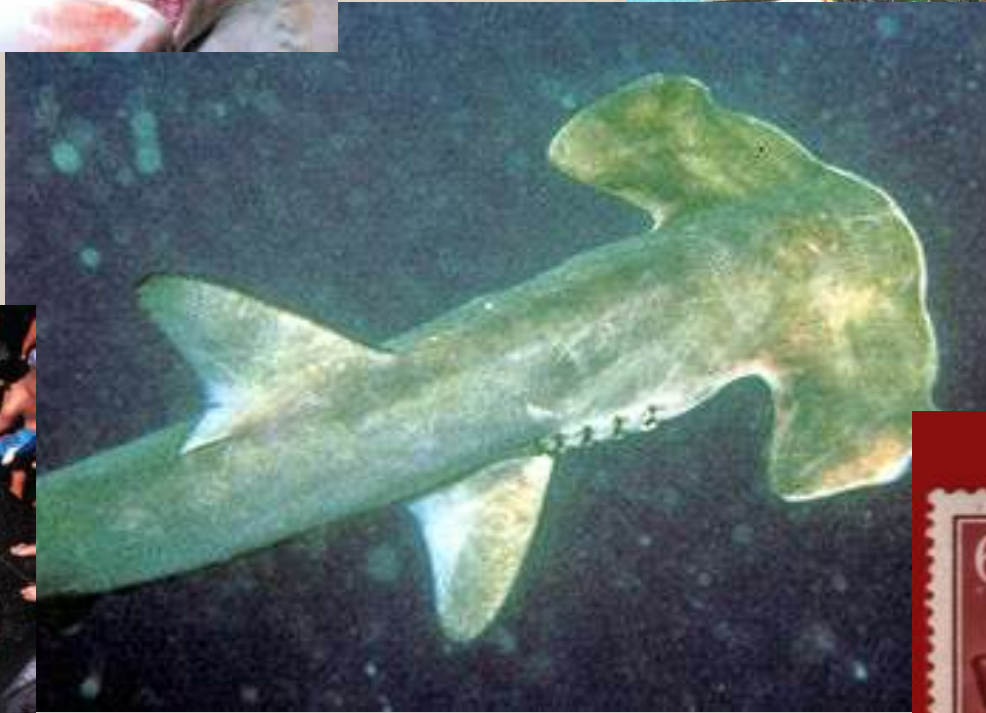
Blacktip reef shark (*Carcharhinus melanopterus*)



Blue shark (*Prionace glauca*)



Smooth hammerhead (*Sphyrna zygaena*)





Angelshark (*Squatina squatina*)



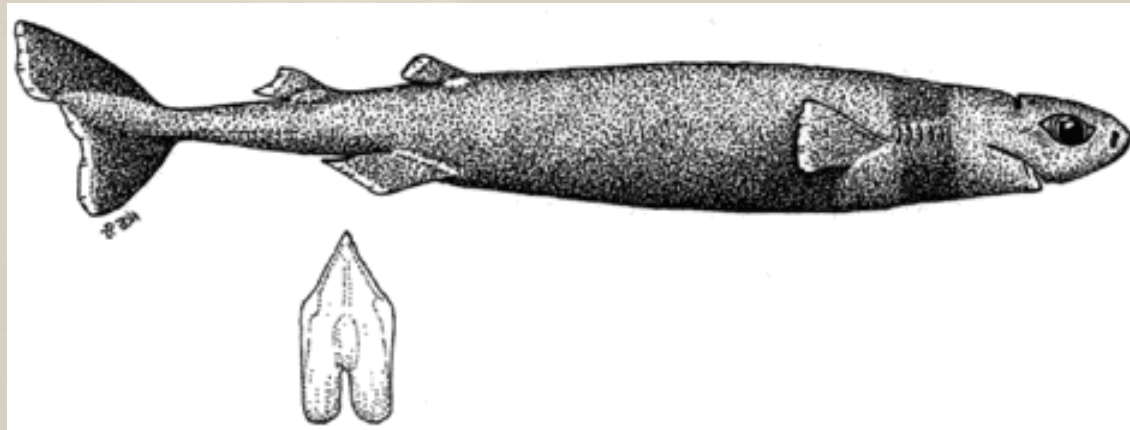


Bluntnose six-gill shark (*Hexanus griseus*)





Cookie cutter shark (*Isistius brasiliensis*)



Shortfin mako (*Isurus oxyrinchus*)



Sandtiger shark (*Carcharias taurus*)



Basking shark (*Cetorhinus maximus*)



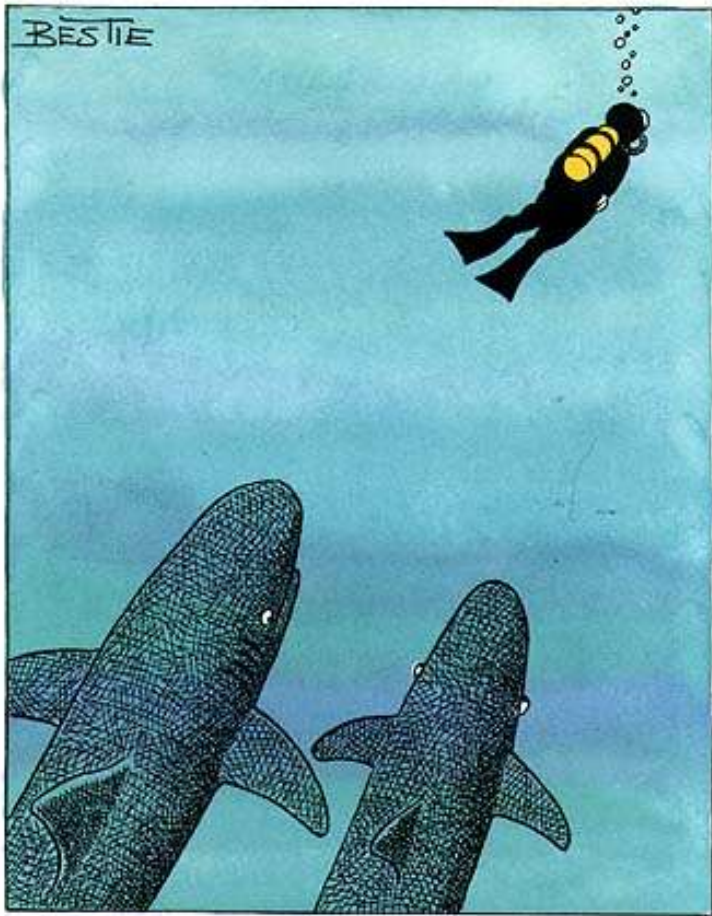
Thresher shark (*Alopias vulpinus*)



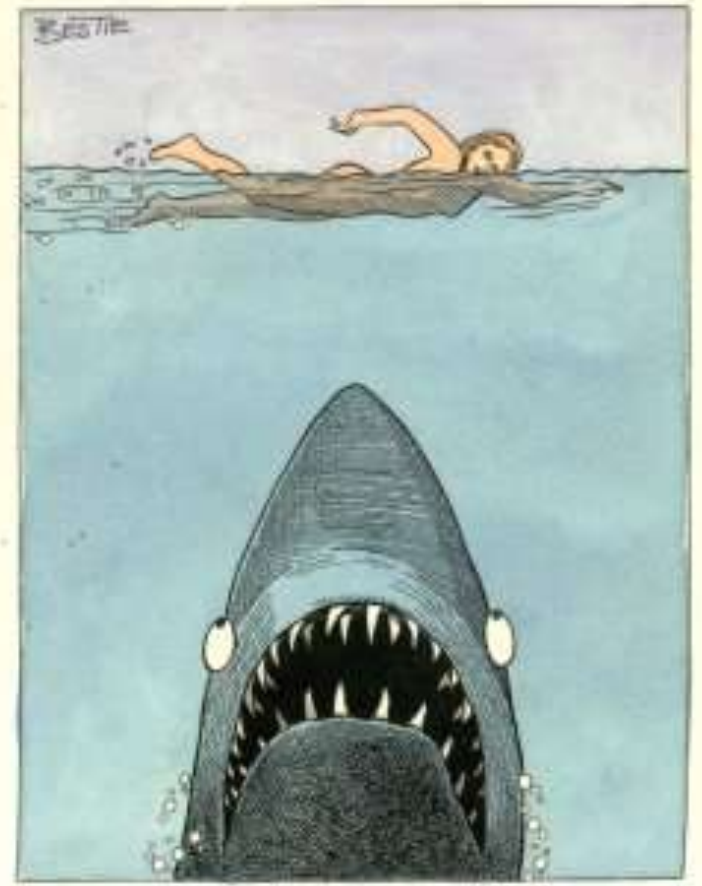
Great white shark (*Carcharodon carcharias*)







"DON'T EAT THE HARD BIT ON ITS BACK,
THEY MAKE YOU FART!"



SUDDENLY TERROR STRUCK
~ HE'D NEVER SEEN A NAKED WOMAN BEFORE



Types of shark attacks

- Hit & run
- Sneak attack
- Bump & bite

OVERVIEW, MEDSAF RECORDS FROM 1890 - 2003



- (A) Unprovoked Injurious Interactions with Swimmers / Divers**
N(incidents)=33; N (victims)=36, Fatal=18 (50%);
annual rate: 0.29p/a
- **Latest Injurious Interaction; swimmers: 03**
September 1993 at 08.00hrs
Location: Playa de les Arenes, Valencia (Catalonia),
Costa Blanca, Spain.
 - **Latest Fatal Interaction: 02 February 1989 at 10.30hrs**
Location: Golfo di Baratti, near Piombino (Tuscany),
Italy.

**So if something does go for
you...**



**Species confirmable, or reliably
attributable, as implicated in
above cases:**

White shark: N=37 (58.7%)

Blue shark: N=3 (4.8%)

Bluntnose sixgill: N=1 (1.6%)





Totals by Country (confirmed incidents only)

(NB: Revised 21-6-2003; Greece)



WESTERN ITALY & SICILY: 25 (Boats=9)

Latest record: 30 July 1991, Non-Fatal, Santa Margherita Ligure (Liguria)

ADRIATIC ITALY: 8 (Boats=1)

Latest record: 22 August 1988, Non-Fatal, Ippocampo (Manfredonia)

GREECE: 5 (Boats=0)

Latest record: (summer) 1981, Non-Fatal, Pagastikos Kolpos, near Volos

CROATIA: 5 (Boats=1)

Latest record: 10 August 1974, Fatal, Omis

MALTA: 4 (Boats=2)

Latest record: 20 July 1956, Fatal, Il-Munxar (St Thomas Bay)

LEBANON: 3 (Boats = 0)

Latest Record: (details to follow)

EGYPT: 3 (Boats=0)

Latest record: 8 August 1899, Non-Fatal, Port Said

SPAIN: 3 (Boats=1)

Latest record: 3 September 1993, Non-Fatal, Valencia (Catalonia)

TUNISIA: 3 (Boats=0)

Latest record: June 1976, Non-Fatal, Bechateur (near Bizerte)

FRANCE: 2 (Boats=0)

Latest record: August 1986, Non-Fatal, Gruissan (Gulf of Lyons)* (NB -based on media report)

ISRAEL: 1 (Boats=0)

Latest record: 5 February 1945, Non-Fatal, Tel Aviv

TURKEY: 1 (Boats=1)

Latest record: 1930, Non-Fatal, Santo Stefano (Bosphorus)





European Attacks since 1907

Italy 14 (4)

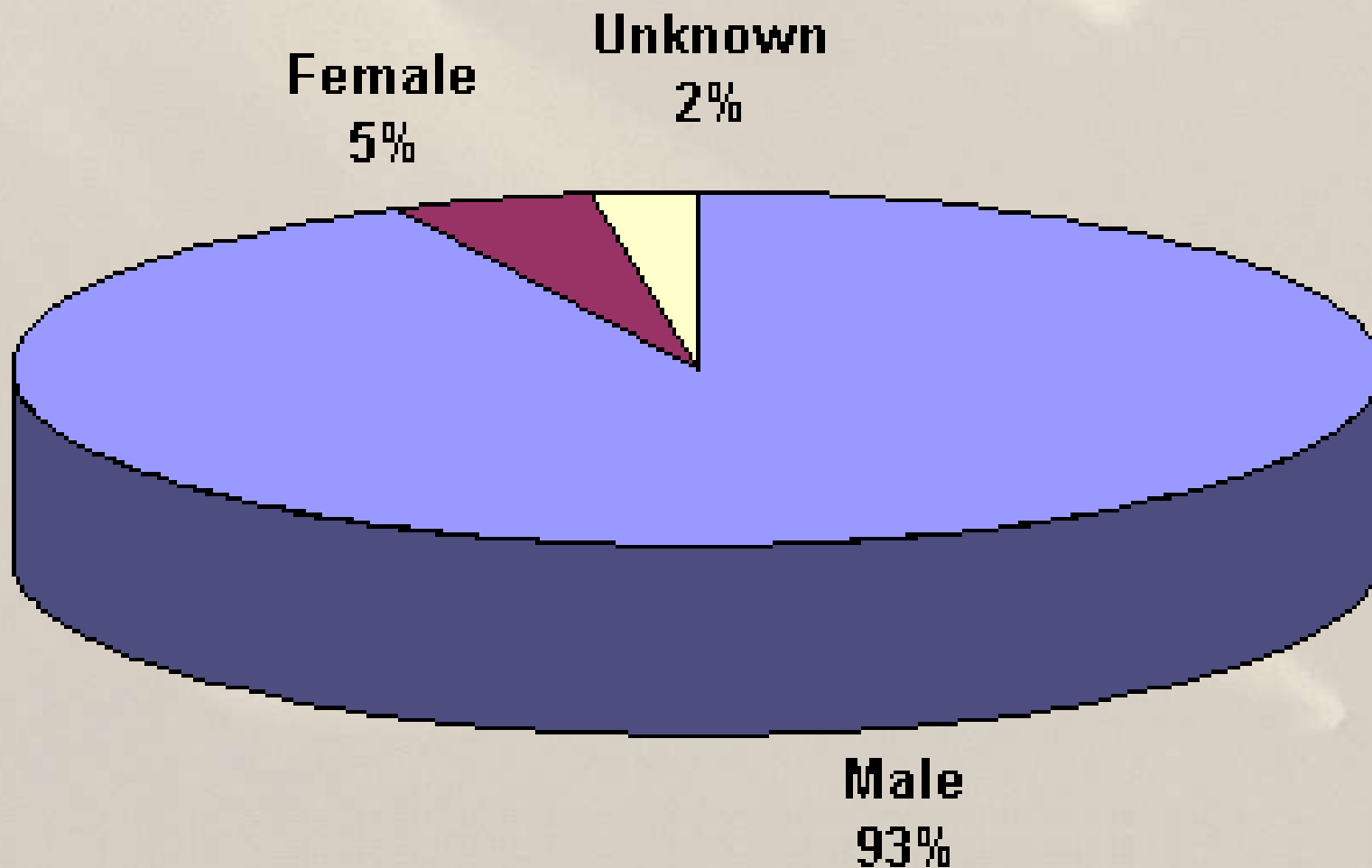
Greece 9 (8)

Croatia 5 (4)



Sex of Victim

WORLDWIDE
(N=248)



Relative Risk – Injuries for one year in NY city



<u>Biting Injury</u>	<u>1981</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
<i>Dog bites human</i>	12,656	10,593	9,809	8,870	8,064
<i>Human bites human</i>	*	1,589	1,591	1,572	1,587
<i>Cat bites human</i>	826	*	879	*	802
<i>Wild rat bites human</i>	60	*	311	*	291
<i>Squirrel bites human</i>	81	*	*	*	95
<i>Hamster bites human</i>	52	*	*	*	*
<i>Rabbit bites human</i>	37	*	*	*	*
<i>Raccoon bites human</i>	18	*	*	*	11
<i>Horse bites human</i>	18	*	*	*	*
<i>Gerbil bites human</i>	17	*	12	*	*
<i>Shark injuries in U.S.A.</i>	12	14	12	6	13