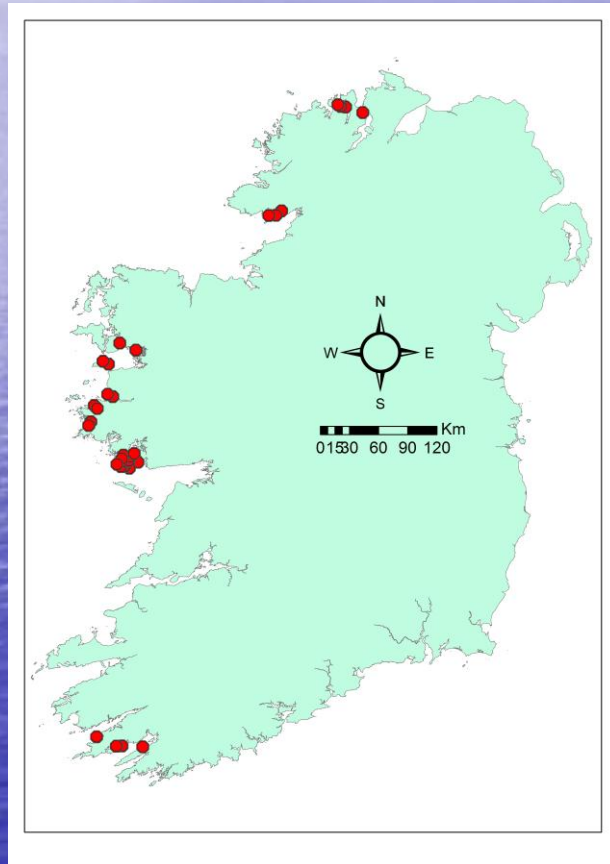


# Irish Escape Incidents.

Alan Drumm,  
Marine Institute,  
Ireland.



# Introduction



- Small industry - 52 licensed sites.
- Currently 17 in operation.
- ~85% organic.
- Forced to go off coast. Holmer(2010) criteria. Sig Wave Height <3 to 4 m
- Plastic cages of 120m.
- Most sites <30m deep.



# Escape Incidents

- 2 reported incidents since 2007.
- < 36,000 escaped.
- Both incidents investigated by MI and Dept Engineers.
- Mooring coupling failure and net failure.

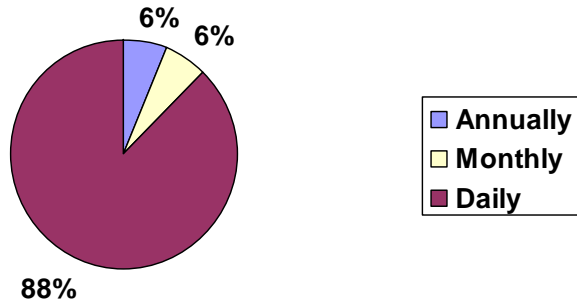


# Reasons for lack of escapes.

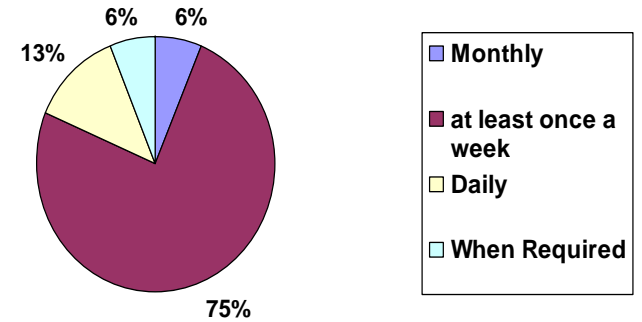
- Small industry - but exposed sites.
- Experienced staff – learn from mistakes.
- Inspection and Maintenance procedures for Floaters, Nets and Moorings.



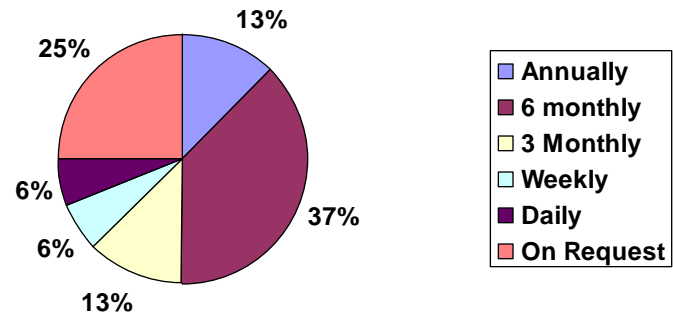
**Frequency of Floater Inspections**



**Frequency of net inspections**



**Frequency of mooring inspections**



# Examples of Net Maintenance



PREVENT Escape FP7

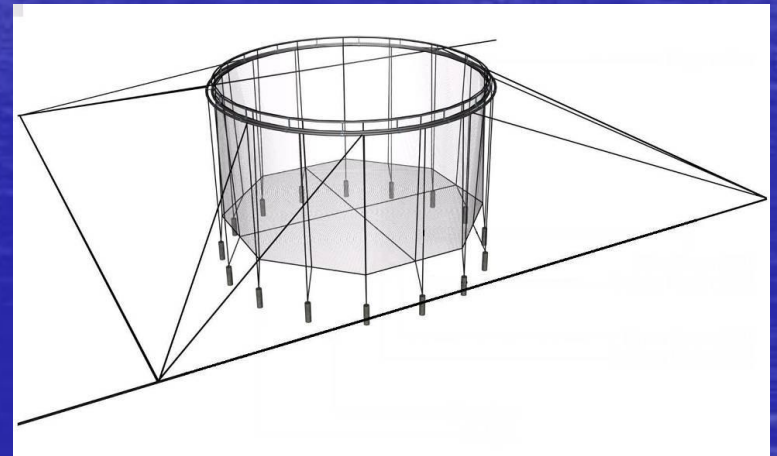
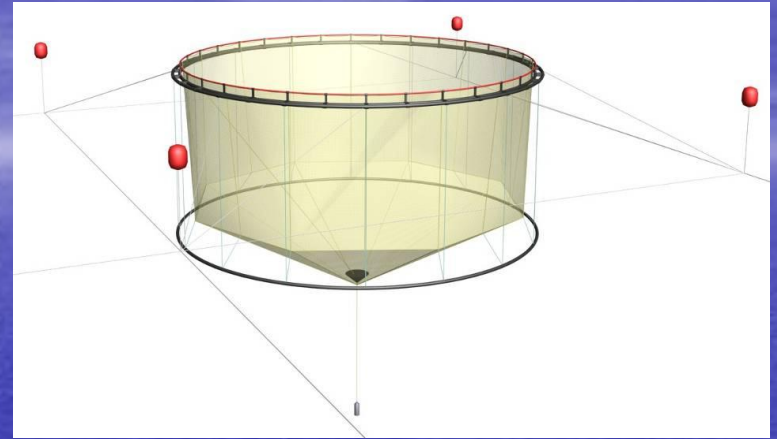


- Central net repair.
- Contract with net manufacturer.
- Net History, number, date of manufacture, all repairs and area of repair, pressure test result.



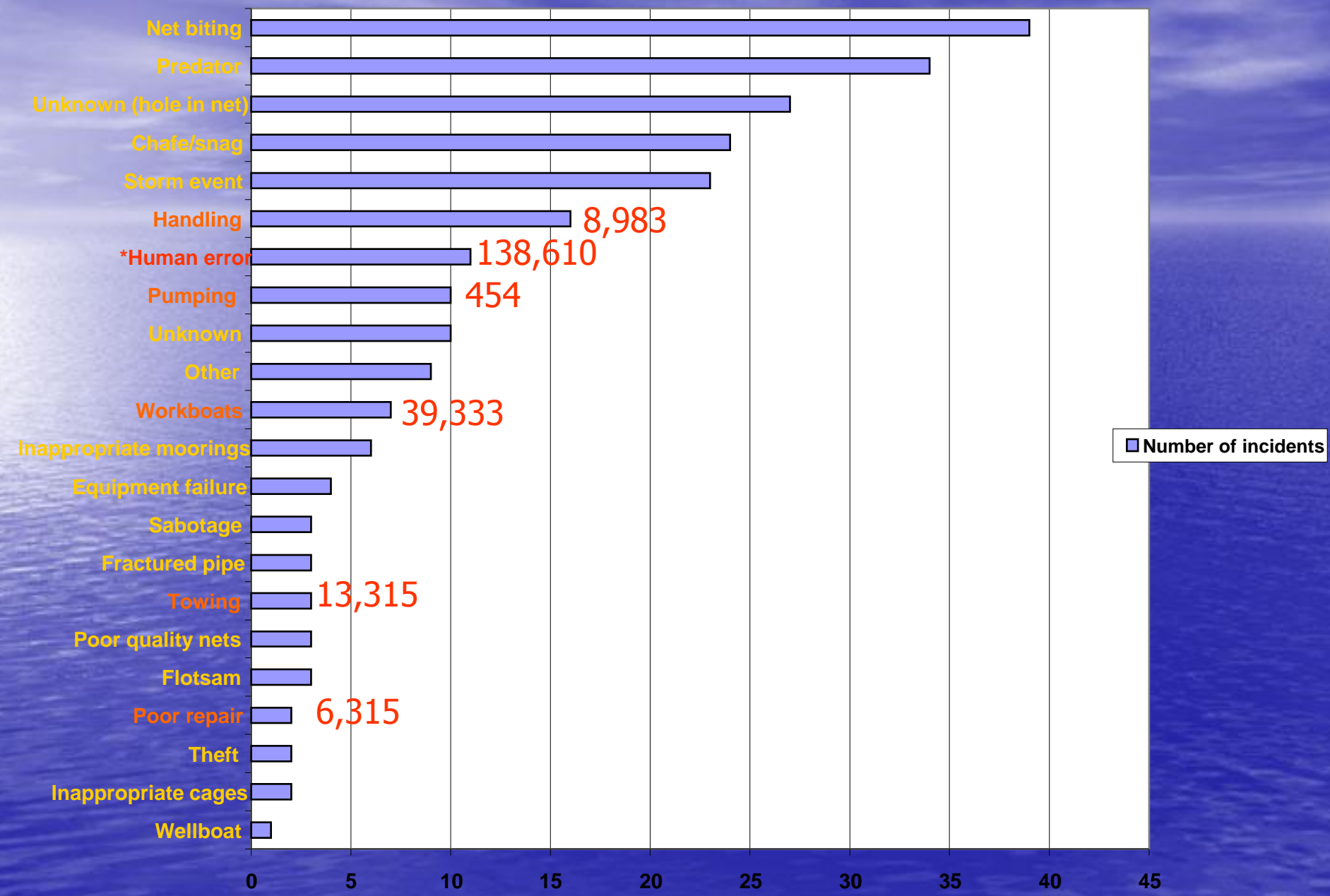
# Predator Control

- Very little use of predator nets.
- Weighting of cage nets used.
- Site specific – 100/150kg





Underlying causes of escapes vs number of incidents



# PREVENT Escape FP7

6 countries 2007-2009

Species	Total		Structural		Biological		Operational		External		Unknown	
	No. of incidents	No. of escapes	No. of incidents	No. of escapes	No. of incidents	No. of escapes	No. of incidents	No. of escapes	No. of incidents	No. of escapes	No. of incidents	No. of escapes
Atlantic Salmon	113	820158	40	678279	5	6758	47	88065	3	13194	18	33862
Cod	61	457005	6	16466	38	118974	6	11839	3	180717	8	129009
Sea bass	15	599600	9	540000	5	52100			1	7500		
Sea bream	52	6846100	22	6181900	25	604000	1	20000	2	25200	2	15000
Meagre	1	200,000	1	200,000								
Totals	242	8922863	78	7616645	73	781832	54	119904	9	226611	28	177871

Headings as per Jensen et al 2010

<http://preventescape.eu/>



# Containment Training

- Currently very little carried out in Ireland.
- Staff need to be aware of impact of escapes – loss of profits, impact on local rivers, **image of industry**.
- Staff made aware of all maintenance and escape response procedures.
- \* Any containment training must include the need for **full comprehensive reporting** of the incident.

Thank you for your attention

