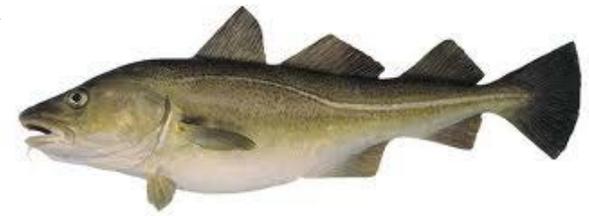

How effective is a catch quota regime in the commercial Dutch cod fishery?

March 2014, FDI Rome

A.T.M van Helmond, C. Chen, J.J. Poos, M. Kraan



Catch instead of landings



Does this work for the Dutch **mixed** fisheries ???

1) Is Electronic Monitoring right tool?

2) Does CQM change fishers behaviour? (work in progress)

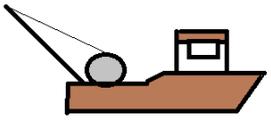
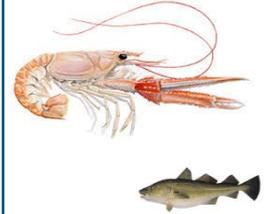
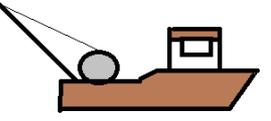
30 % D.A.S

Small
print!

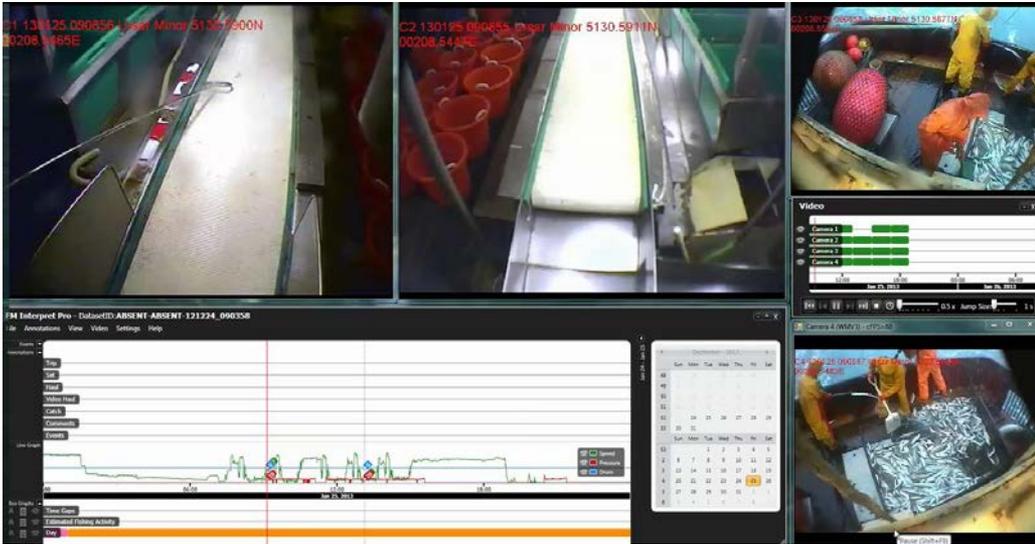


all catches by the vessel from the stock subject to the additional allocation, including fish that are under minimum landing size as defined in Annex XII of Regulation (EC) No 850/98, shall be counted against the individual allocation of the vessel

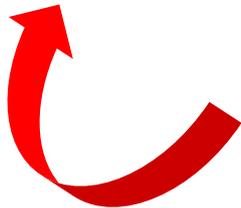
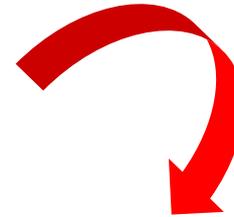
The candidates

Group	Vessel size	Mesh size	Target species	Fishing area	participation
Nephrops vessels	 22-27m 221 kWh	80 mm		Nephrops grounds NS	3/0
Small vessels	 20-28m 221 kWh	20 - 120mm		Coastal	7/5
Fly-shooters	 25-42m 677-1471 kWh	80 - 120+mm		Western Channel - Denmark	7/6

Just checking



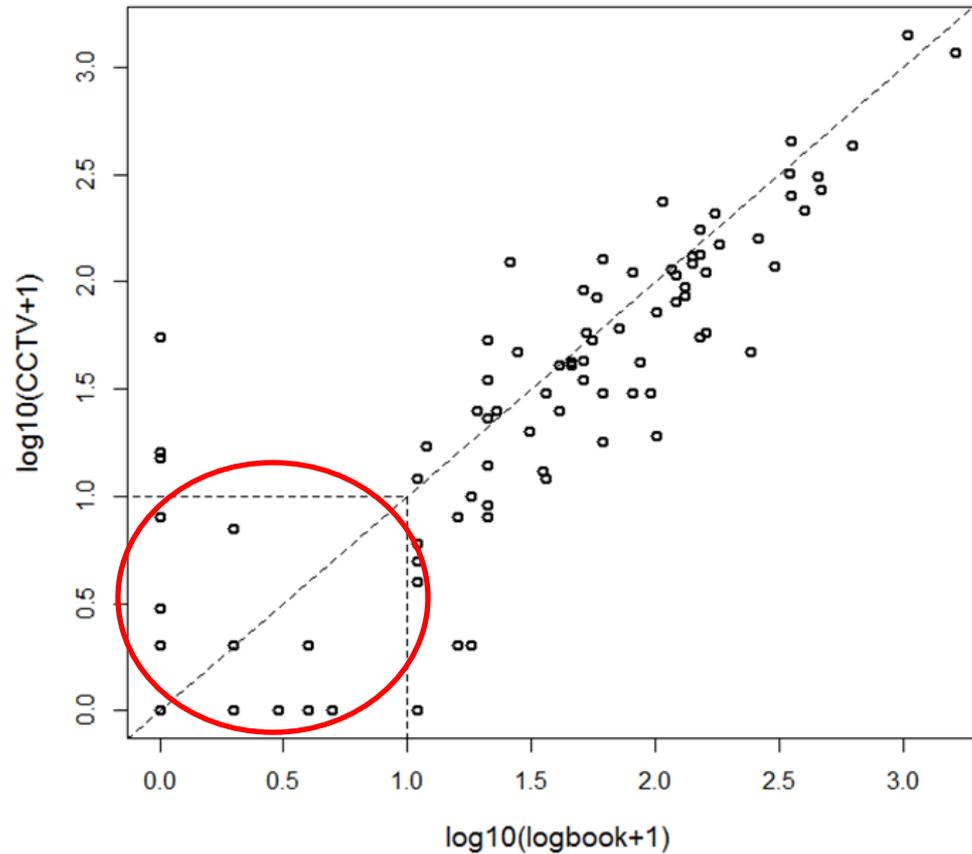
EM is check on logbook!!



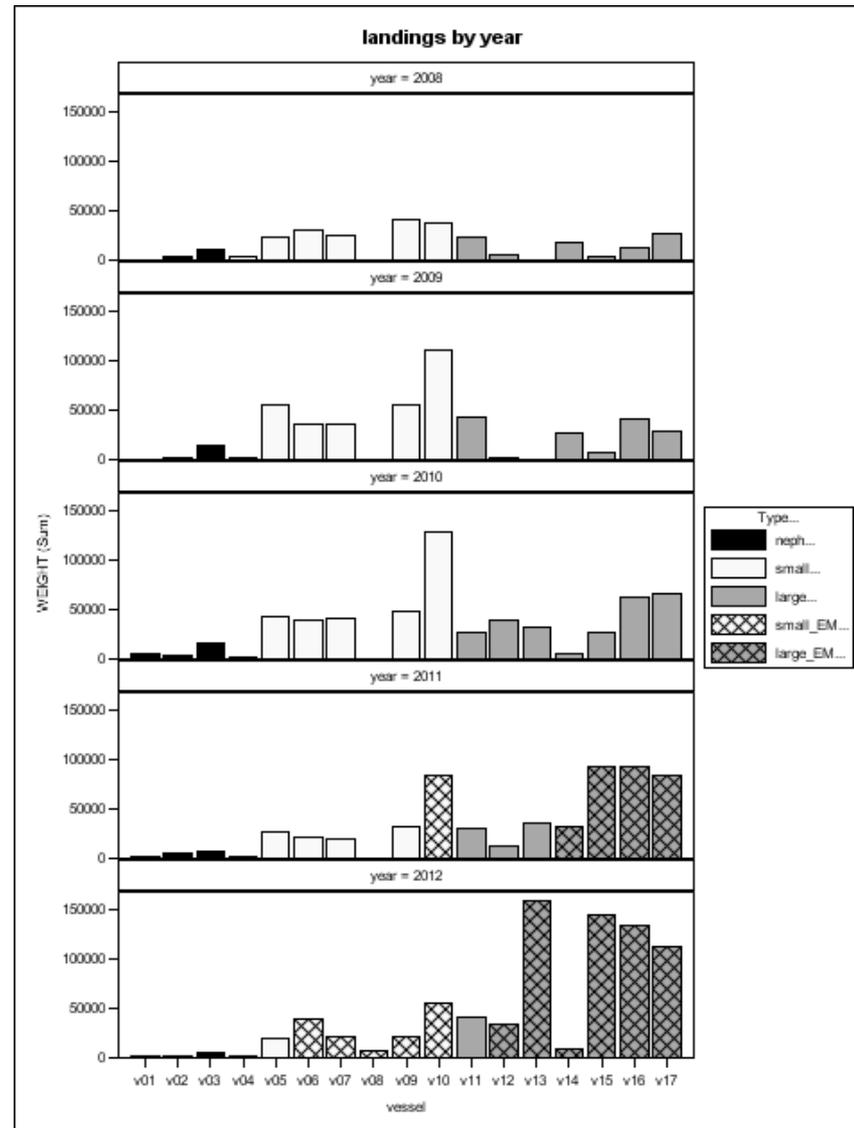
trek	datum	tijd uitzet	lat	long	tijd halen	afstand (Nm)	kabeljauwvangst in aantallen					
							1 (>88cm)	2 (72-88cm)	3 (55-72cm)	4 (46-55cm)	5 (35-46cm)	discards (<35cm)
1	10/19/2011	8:00	51.25	3.07	11:45	13	2	10	18	2		
2	10/20/2011	8:30	51.3	3.1	14:30	20	4	14	16	1		
3	10/21/2011	15:00	51.33	3.12	21:00	20	1	20	90	30	5	1
4	10/22/2011	21:15	51.3	3.12	3:00	21	3	11	26	1		
5	10/23/2011	4:00	51.22	3	9:00	19	10	14	20	12	3	2
6	10/24/2011	9:30	51.3	3.1	15:00	18	2	10	20	2	1	
7	10/25/2011	15:15	51.23	3.01	20:15	17	2	19	11	6	2	
8	10/26/2011	3:15	52	4.08	8:15	20		2	33	22	19	6
9	10/27/2011	8:30	52.05	4.09	13:30	18	4	21	46	14	4	3
10												
11												
12												
13												
14												

Logbook vs. video

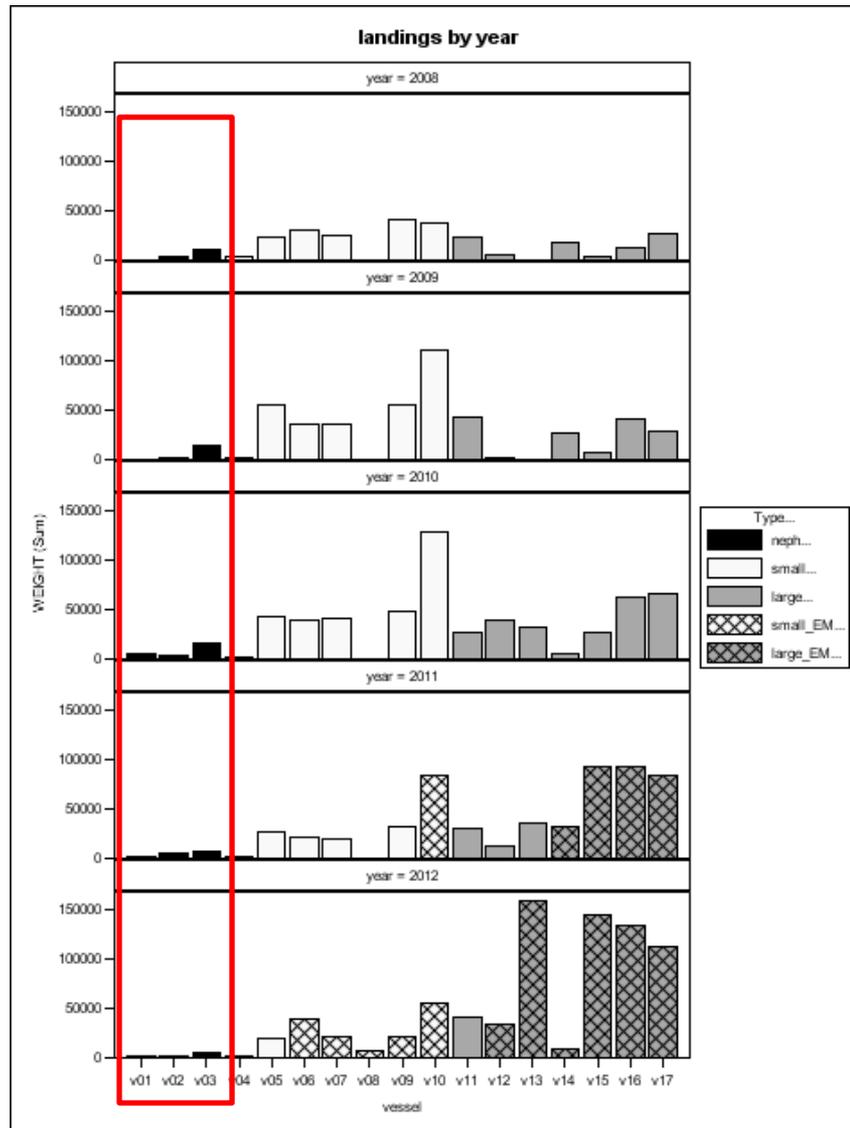
	Mean of difference	p-value paired t-test	ICC
Data 1	0.077	0.565	<0.001
Data 2	0.092	0.006	0.844



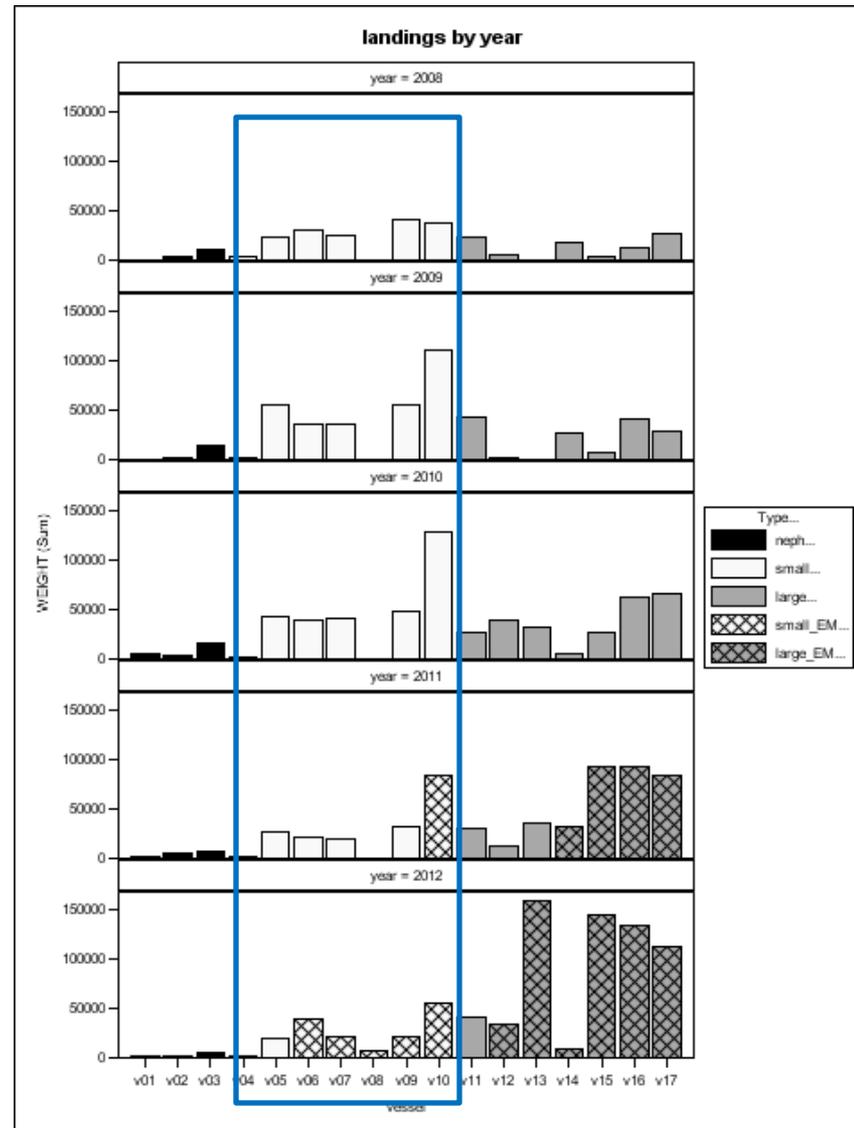
Effect of Catch-Quotum on landings?



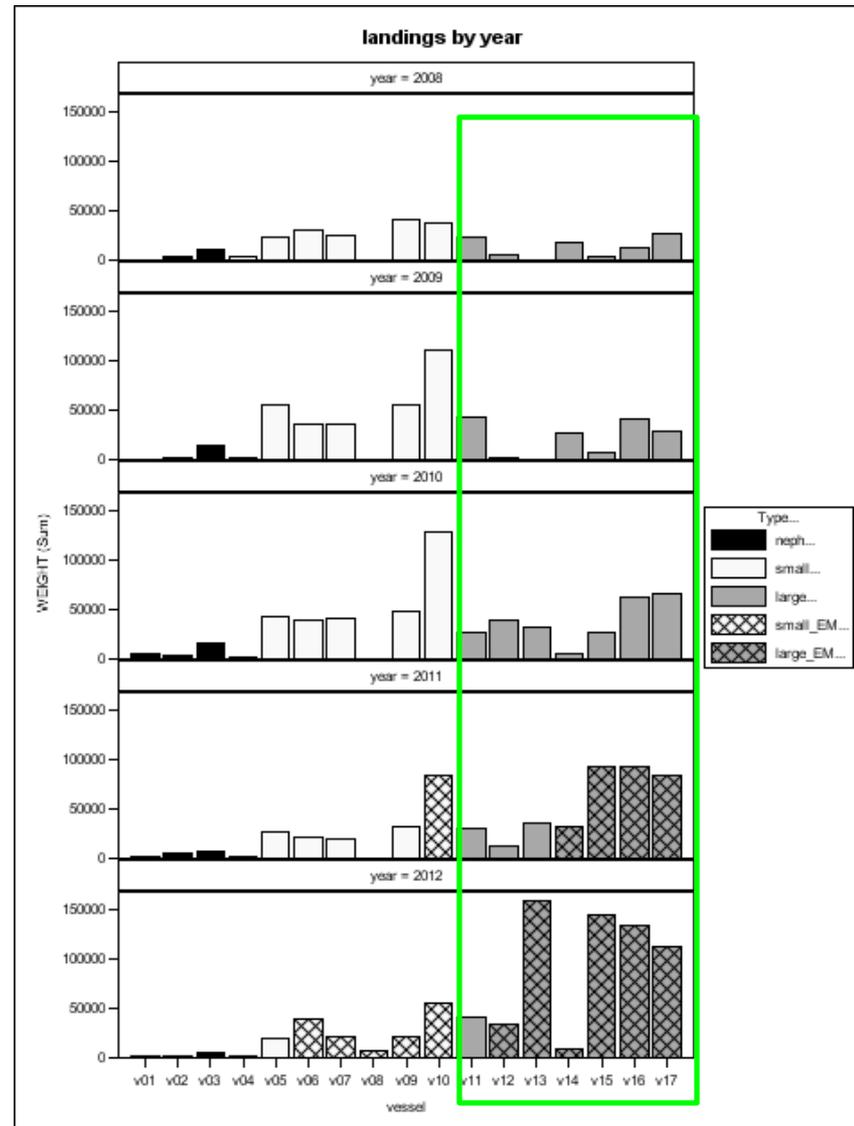
Effect of Catch-Quotum on landings?



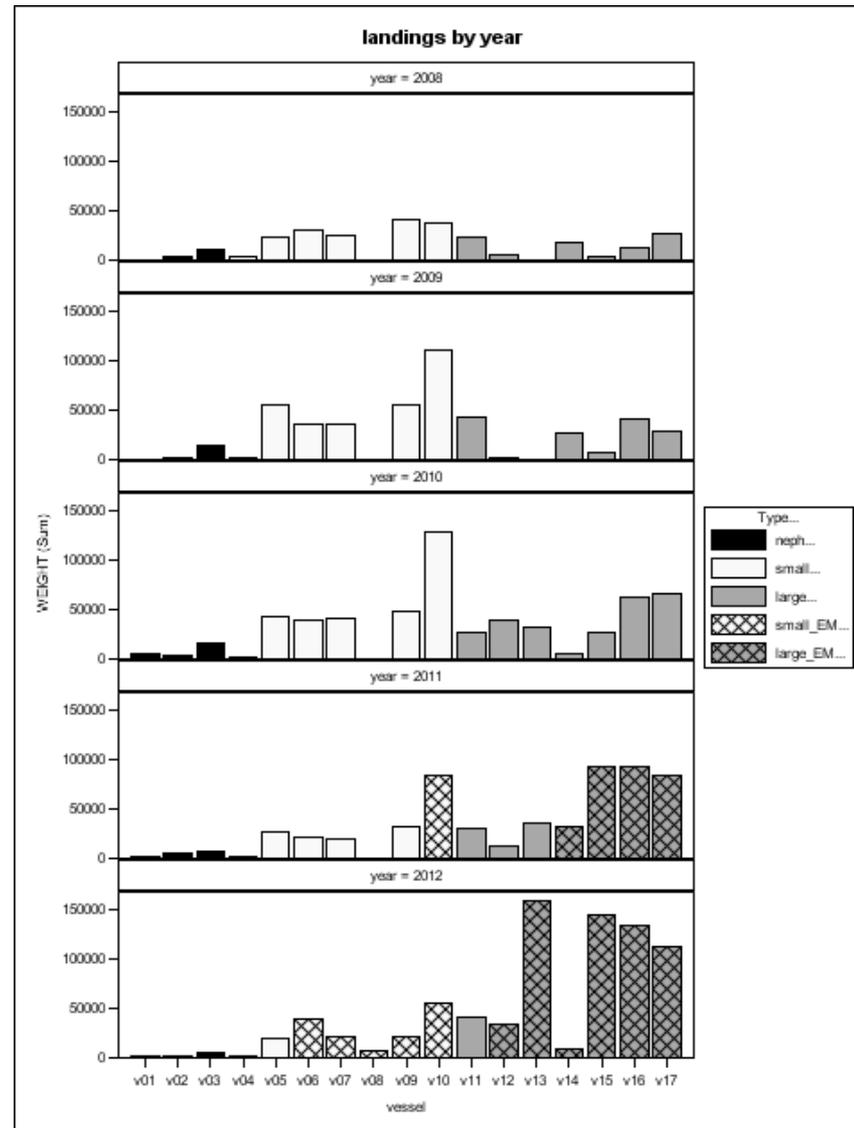
Effect of Catch-Quotum on landings?



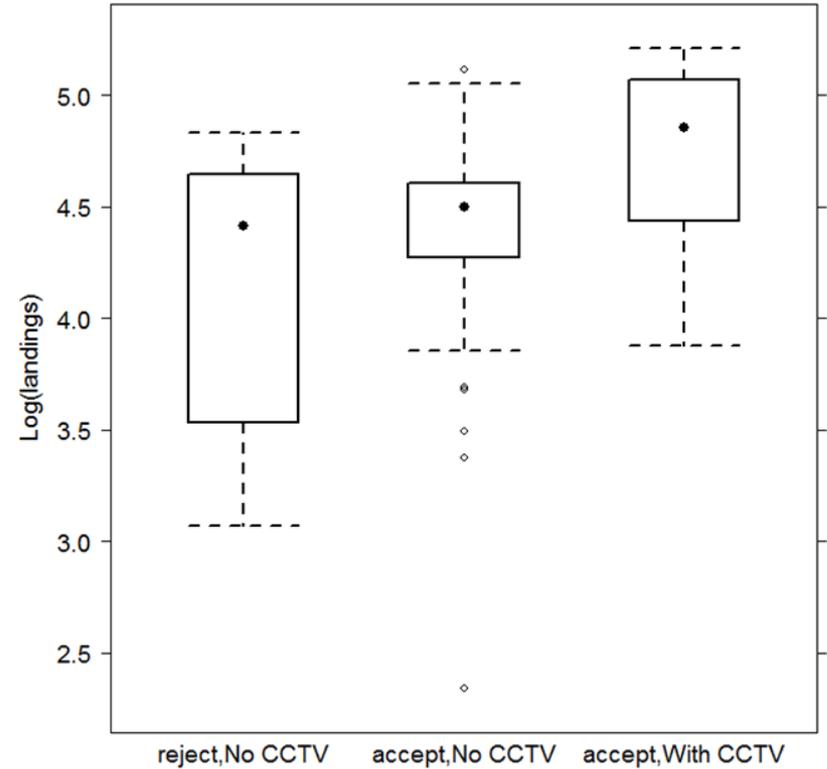
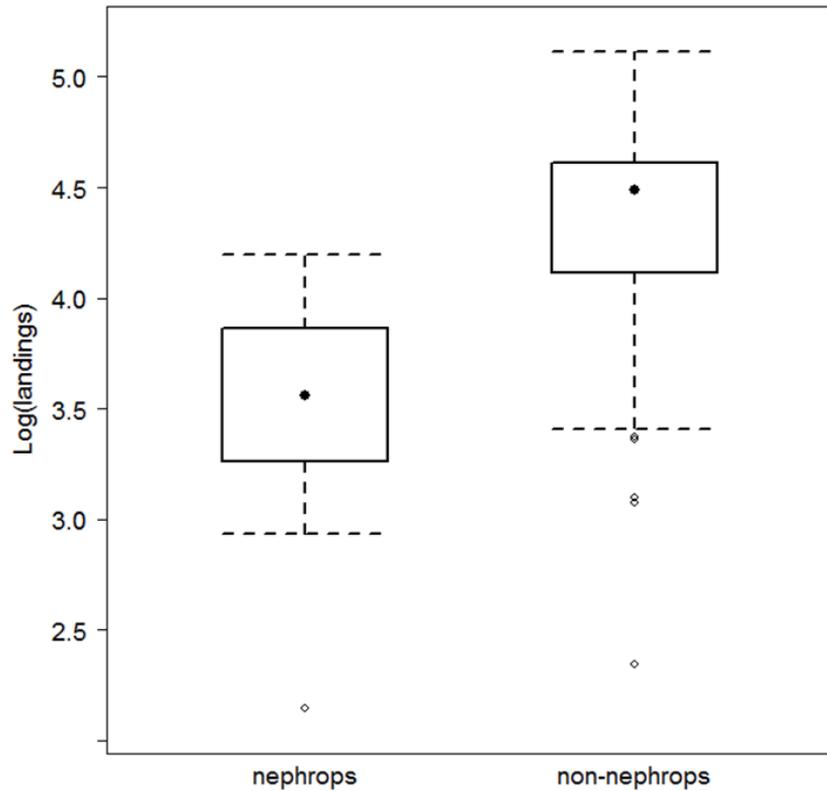
Effect of Catch-Quotum on landings?



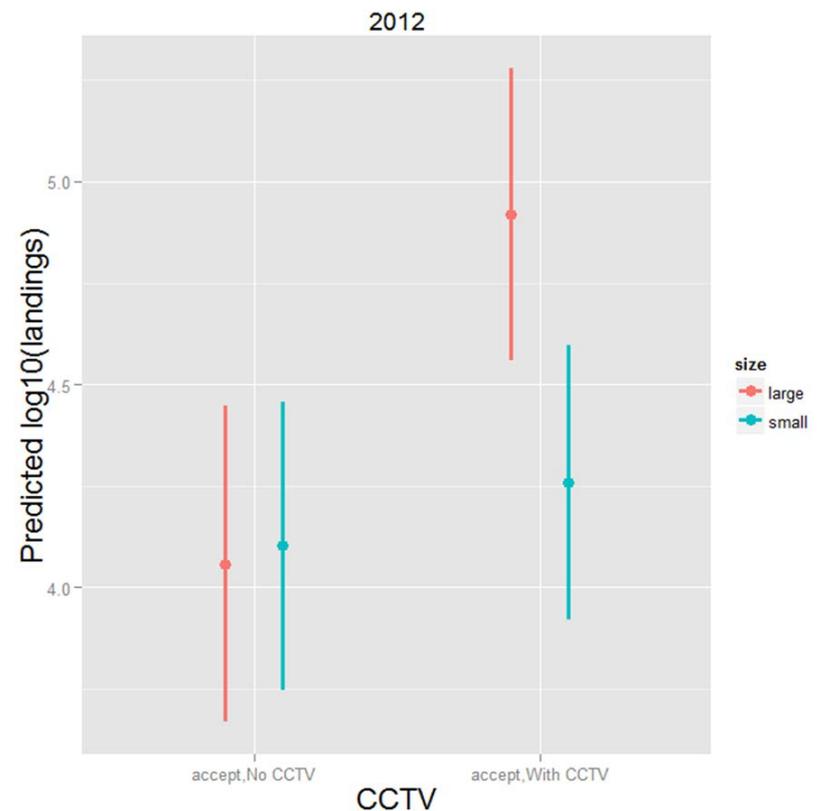
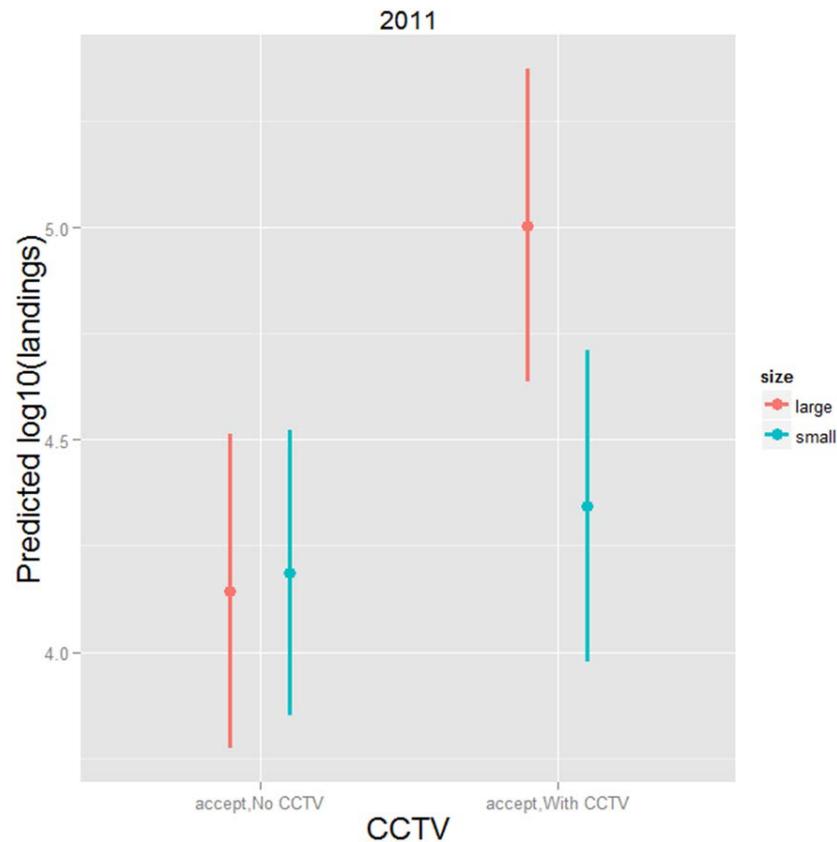
Effect of Catch-Quotum on landings?



With or without CCTV...



No higher landings for small vessels with CCTV. What happened with the extra 30% ?!



Conclusions (and the way forward)

- Logbook vs. video: EM less accurate for small catches
 - catch quota management for mixed fisheries!
- (Groups of) Fishers behave differently on different management regime: (not) Participating (**important indicator**).
 - feed-back and interviews...
 - Different mesh size? (regulations).
 - Spatial effects? (micro-level).

Thank you

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