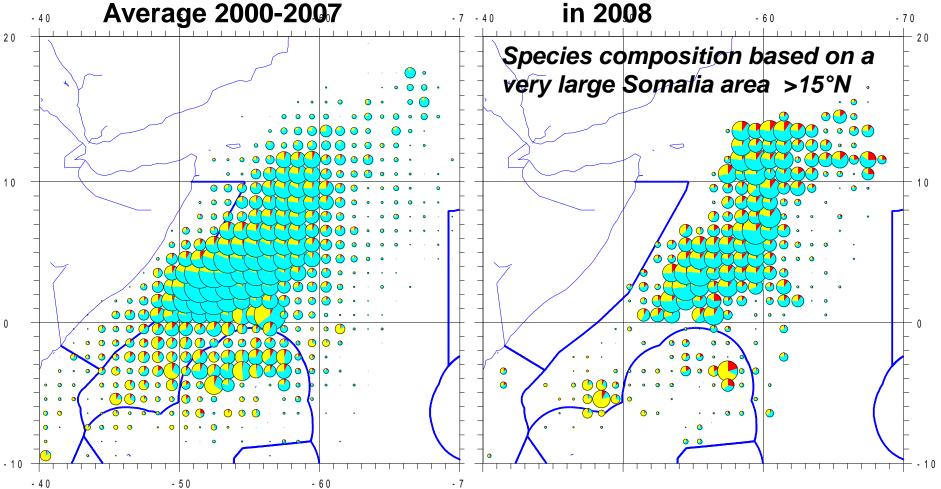
## Updated analysis of the SFA 2008 PS data: 2008 effects of the closed area in Somalia

- The Bangkok WG has been questioning upon the consequences of the closed area recently enforced by pirates off Somalia on tuna catches and on tuna stocks, (the closed zone reaching potentially 400 miles in 2008)
- Taking into account the great importance of the Somalie area in PS fishery:
  - Amongst area with highest Indian ocean catch: between 12,000
    20,000 t /5 deg. annually
  - Recent total catches in Somalia 400 miles = 48% SKJ, 24%
    YFT, and 37% BET of total PS yearly catches
- Most of tuna catches are seasonal in the area: between August and October (being linked to Somalia upwelling)
- This presentation will examine the 2008 PS data available in the SFA data-base, nearly exhaustive until September 2008, and partial (about 30%) for October 2008.

### Fishing zones of purse seiners during the August-October period

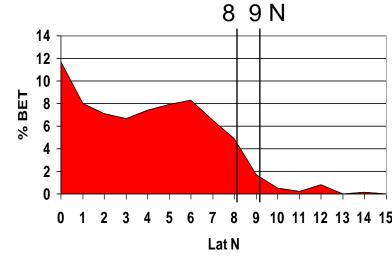


Fishing zones have been moving

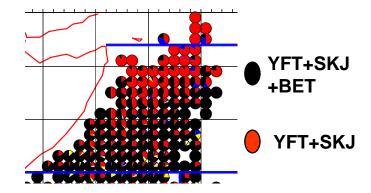
- (1) Eastward, about 300 miles from Somalia
- (2) Northward, in waters that are fully enriched by Somalian upwelling Possible benefit: reduce catches of bigeye as the % of BET in catches are very low North of 8°N

# Bigeye catches tend to be very rare North of 8°N in the Somalia area actively fished in 2008

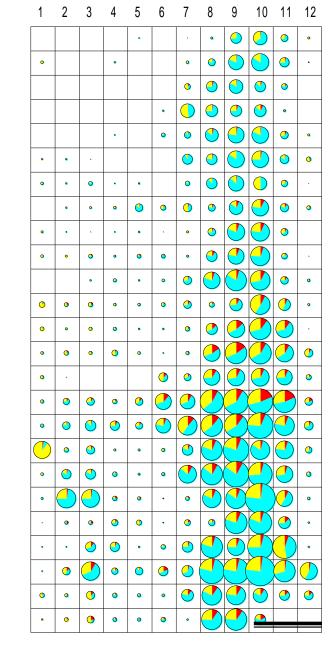
- A result well shown by the analysis of species composition by 1° squares (Fonteneau et al 2007)
- This observation is well explained by the low level of Oxygen in shallower parts of this area (BET also disappear from longline catches in this area)
- An improved data processing of the PS species composition should stratify the Somalia area at 8°N: most of the present BET catches in Northern Somalia area will probably disappear.
- This calculation has not yet been done, but it could easily be done before the end of the week



% of BET in the PS catches as a function of latitude Somalia area



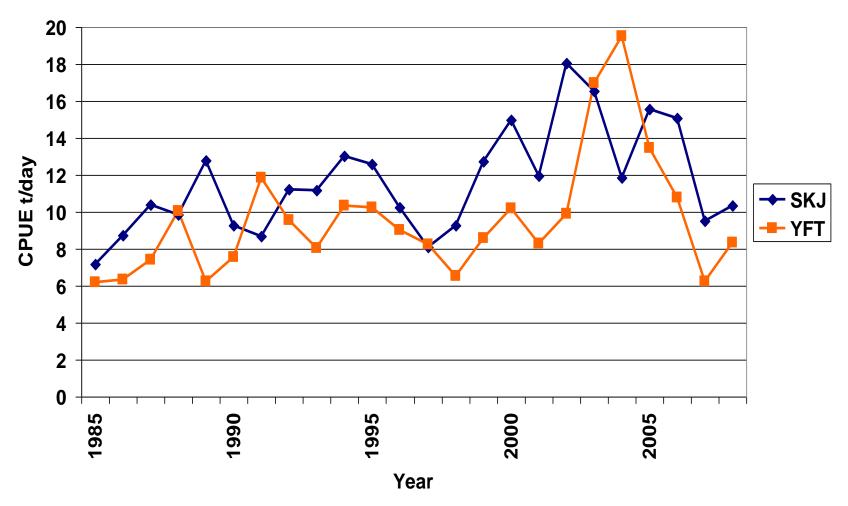
Species composition of FAD sets: In red, freq. of samples without BET



Monthly catches by PS in the Somalia area

Total Catches by PS in August and September 2008 have been more or less the usual

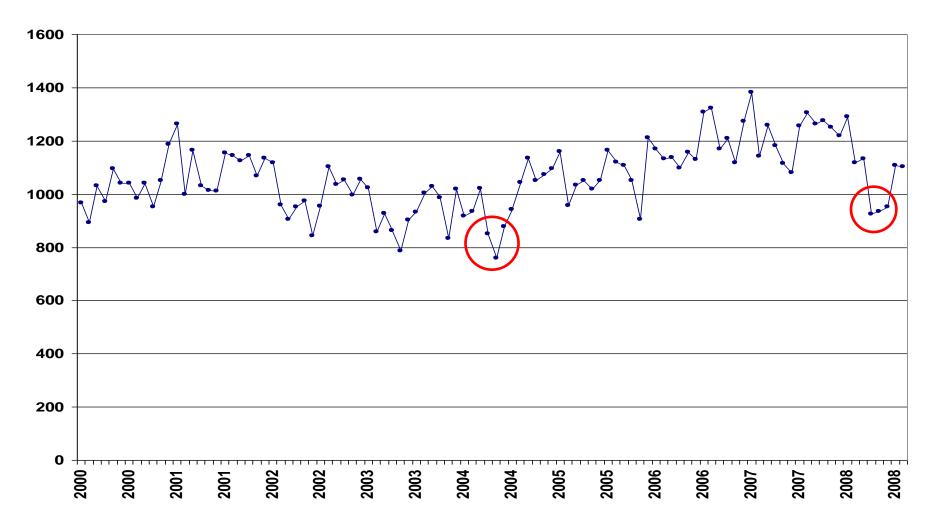
#### Nominal PS CPUE (Month 1 to 10), for YFT and SKJ



Nominal CPUEs of PS during the first 10 month of 2008 have been:

- Moderately low, but better than in 2007 (for both SKJ and YFT)
- in the range of CPUEs observed before the 2003-2006 period (despite of changing fishing zone due to piracy)

#### **Trend of Monthly PS effort (fishing days)**



Low efforts in April/May/June 2008 (lowest for that period since 2004)

Many vessels (16) were under repair

#### Conclusion

- Effect of Piracy
  - Change in fishing zones
  - No significant change in yield and CPUE
  - Potential change in specific composition of catches
  - Potential change in size distribution of catches

Last two point need to be investigated