Seychelles Artisanal Fishery : Focus on *Lutjanus sebae*

FAO SWIOFC/IOTC Weight of Evidence for Fisheries Management Methodology Workshop

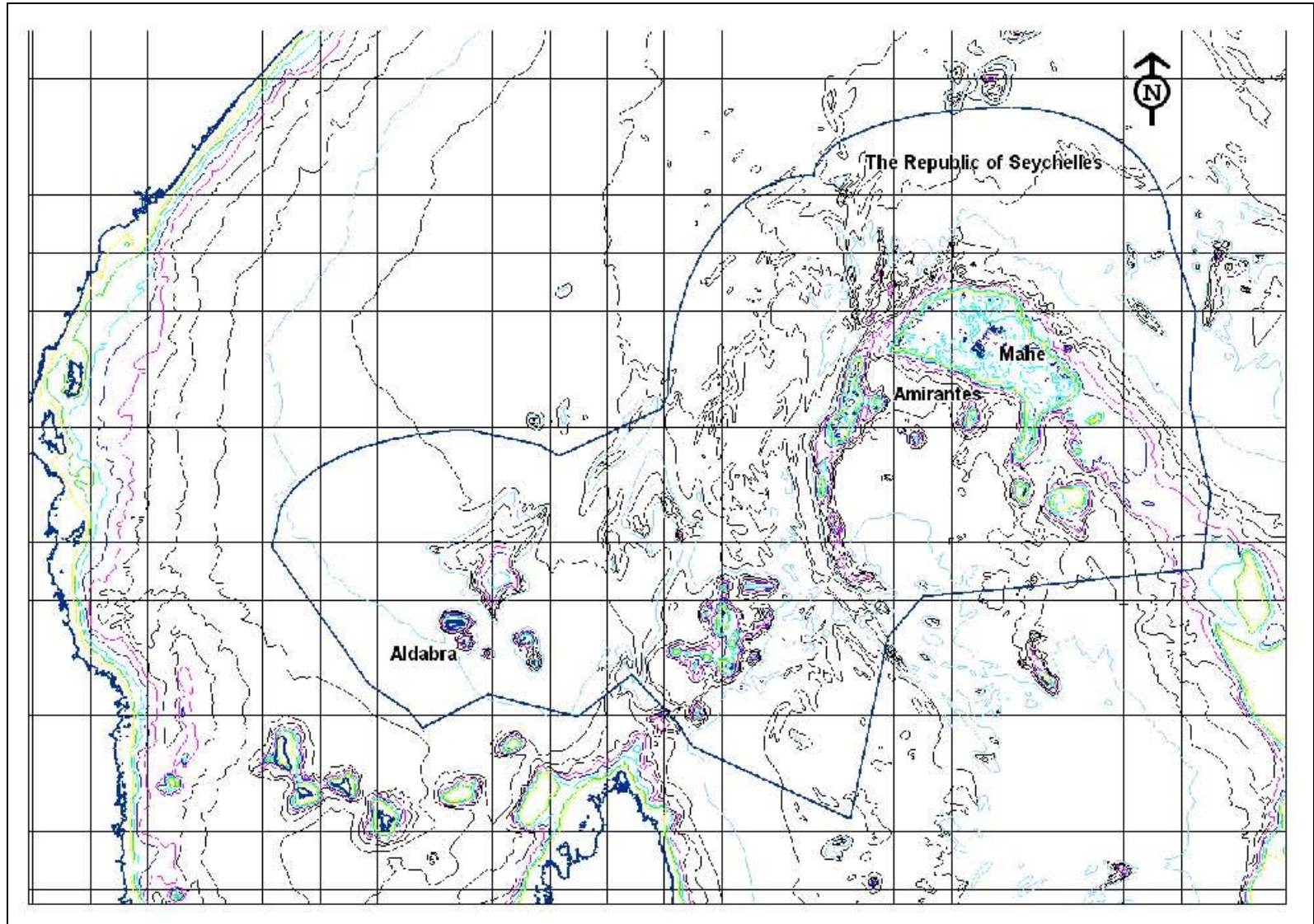24th – 28th March 2014

Mombasa, Kenya

Outline

- Overview of artisanal fishery
- Indicator species
- *Lutjanus sebae*
  - ➢ The fishery
- Information available
- Management advice

Artisanal fishery

- Targets mostly demersal and semi-pelagic species
- Different boat types
- Small boat (pirogues and Mini Mahe)
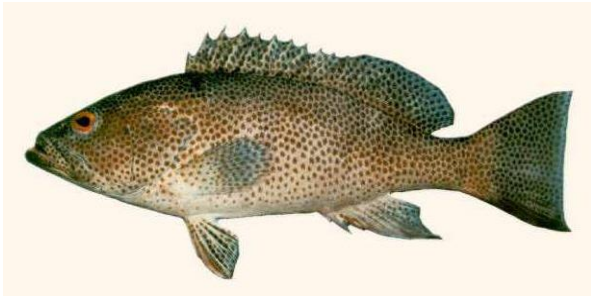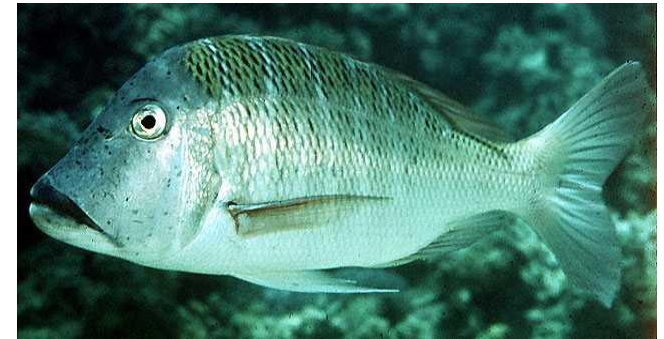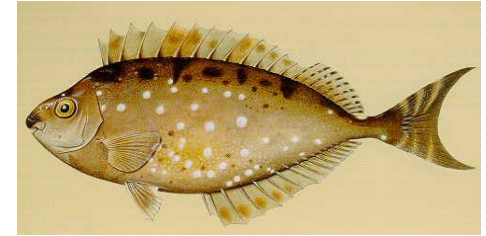- Whalers and schooners

Artisanal fishery

Artisanal fishery

- Multi gear fishery
- Main gear types
➢ Bamboo/metal traps
➢ Handline
- Other gear types
➢ Pelagic longline (Drag: targeting sharks)
➢ Beach seine

Artisanal fishery

- Main targeted species
- Lethrinids, lutjanids
- Carangidae
- Epinephelus spp.
- Siganids
- Catch 2003-2008 =3800-4800t
- Catch 2012 = 2500t

Indicator species

- *Lutjanus sebae* (Bourzwa)

- *Aprion virescens* (Zob gri)

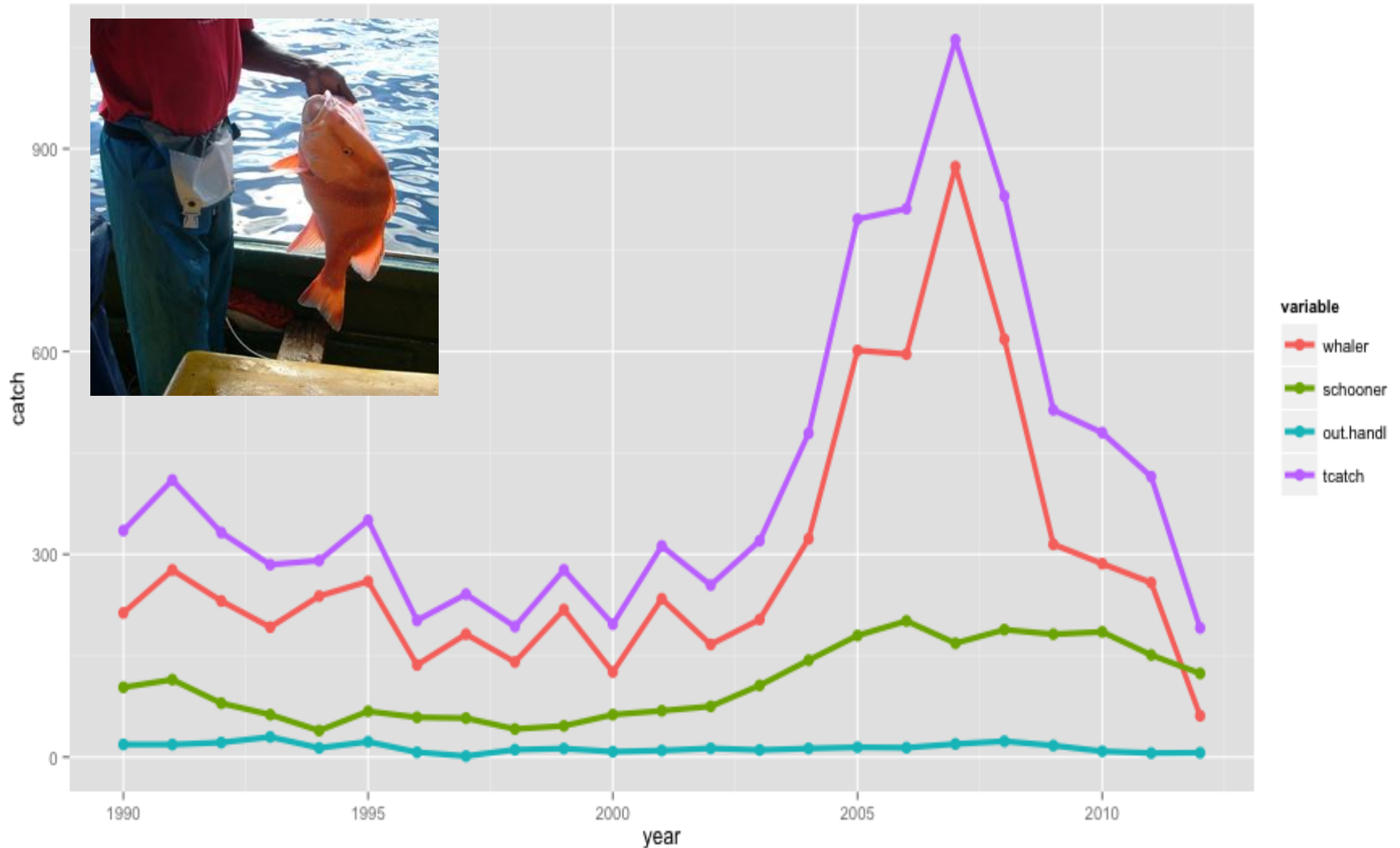- *Epinephelus chlorostigma* (Vyey makonde)

Lutjanus sebae

- 10-20% of total catch
- Long life span (t_{max} = 28 years) , slow growth rate (k=0.14) , late age at sexual maturity (t_m=9 years)
- Targeted by small boat, whaler and schooners
- Mostly caught by handline gear
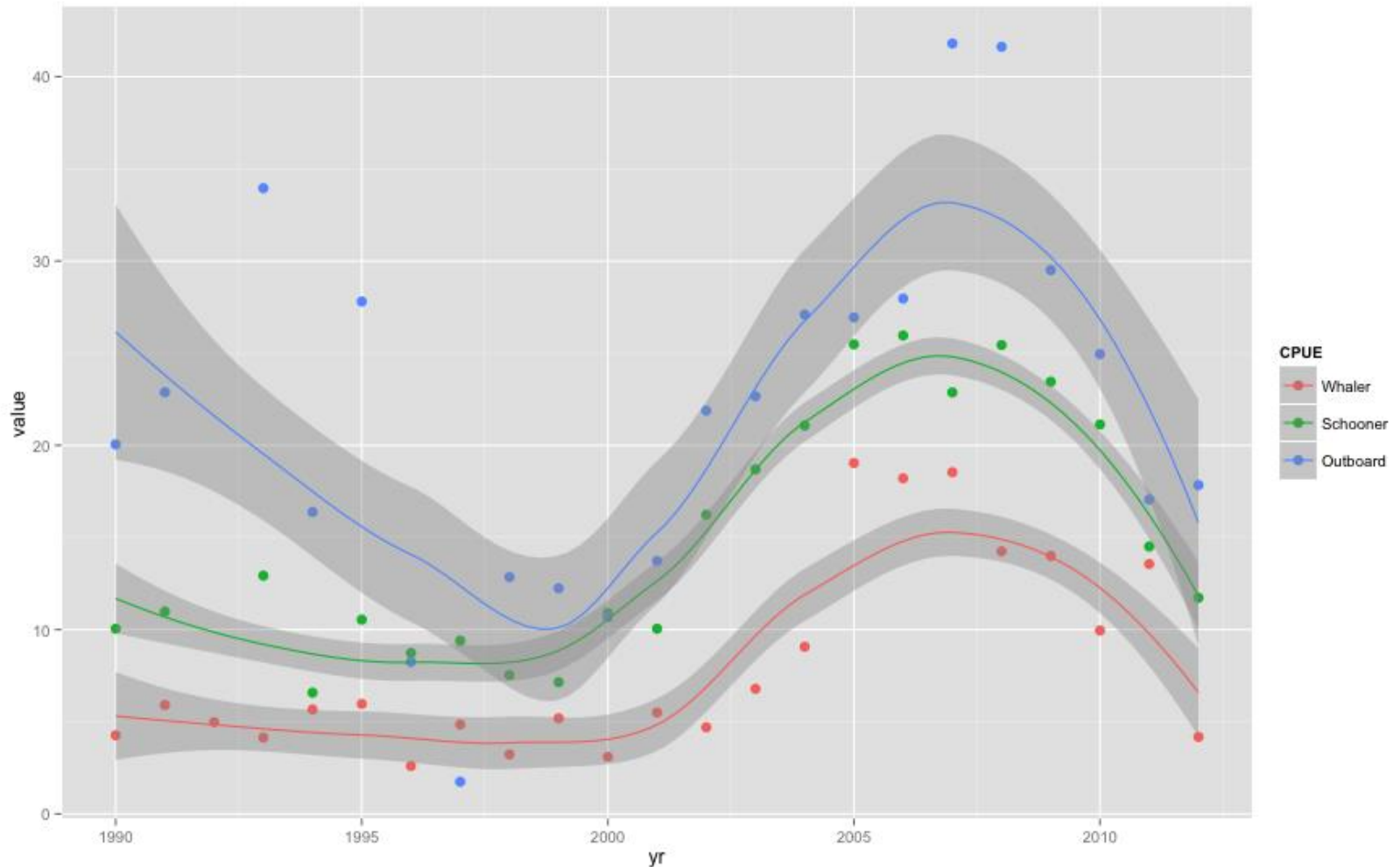- Juveniles also caught using traps

The fishery:- *L. sebae*

- Driven by whaler fleet
- Large increase in mid 2000's

L. sebae: Catch per Unit Effort (CPUE)

- Same pattern as catch
- Increase in relative abundance in 2000's / increase in targeting

Information available

- Catch and effort data from CAS (1990 – 2012)
- Length frequency (1989-1997, 2000, 2003-2012)
- Otolith age readings (2000)
- Stock assessment results
➢ Lablache and Carrara, 1988 (MSY 380t)
➢ Grandcourt et al. 2008 (MSY 208t)
- Fishing mortality estimates
➢ Derived from length converted catch curves

Management advice

- Determine the stock status

- Best way to reduce effort and by how much??

- Temporal closures??

- Closed areas

- Export controls

Thank you!!