

# Namibian Data Available for Joint Hake Assessment

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# DATA SOURCES

- **Historical catches:** 1964 –
- Swept-area **Biomass surveys:** Annual since 1990, on *Nan-Sis*
- Commercial **Logbook data:** since 1997 (daily **94-97**), on *FIMS*
- Commercial **Sampling (Observers):** since 1997, on ResDat (*FIMS*)
- Annual **Seal Scat** Sampling, since 2005
- **“Port Sampling”:** since 2006 (Biologicals, position, date and depth)
- Occasional **Experimental surveys:** spawning, distribution/life history...

# Historical Catches

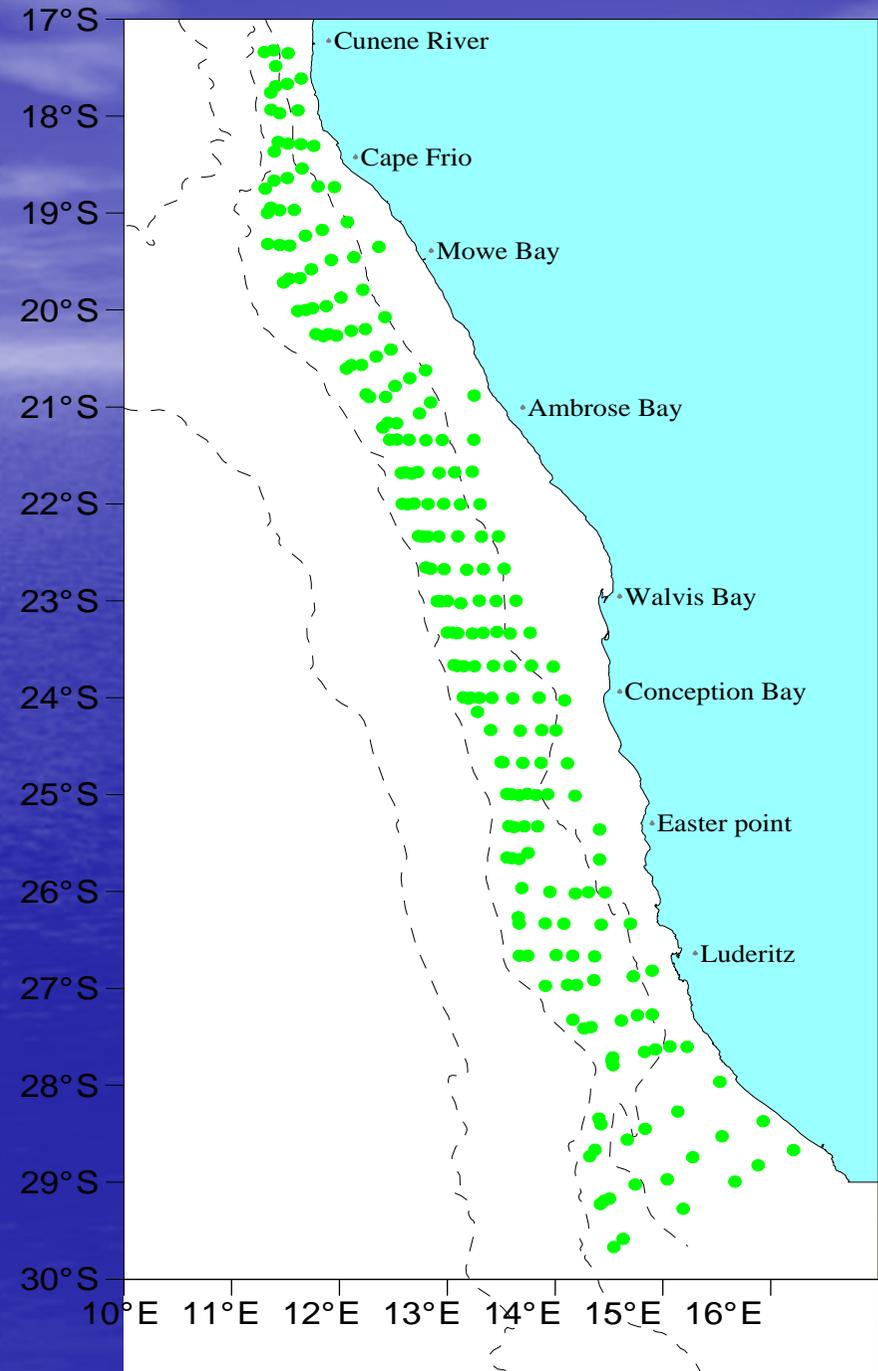
- Doc "IWS\_DEC11\_H\_Model\_BG2"
- 1964 – Annual catches
- 1992 – 1997: positions, depth **but daily**

# Biomass surveys

- **Old Nansen (1990-1993), New Nansen (1994-1999), commercials (2000 - )**
- Trawl info: opening/height, width, mesh, constr. rope/door spread, footrope
- Spatial: position, time and depth
- Catches: species, sex
- Lengths: species, sex
- Biological: length, weight, sex, maturity, otolith, **trophics (stomach, muscles tissues)**

# Survey Stations

- Generally same strategy every year, start in South
- Systematic transect design
- About 220 trawl stations and 100 CTD station



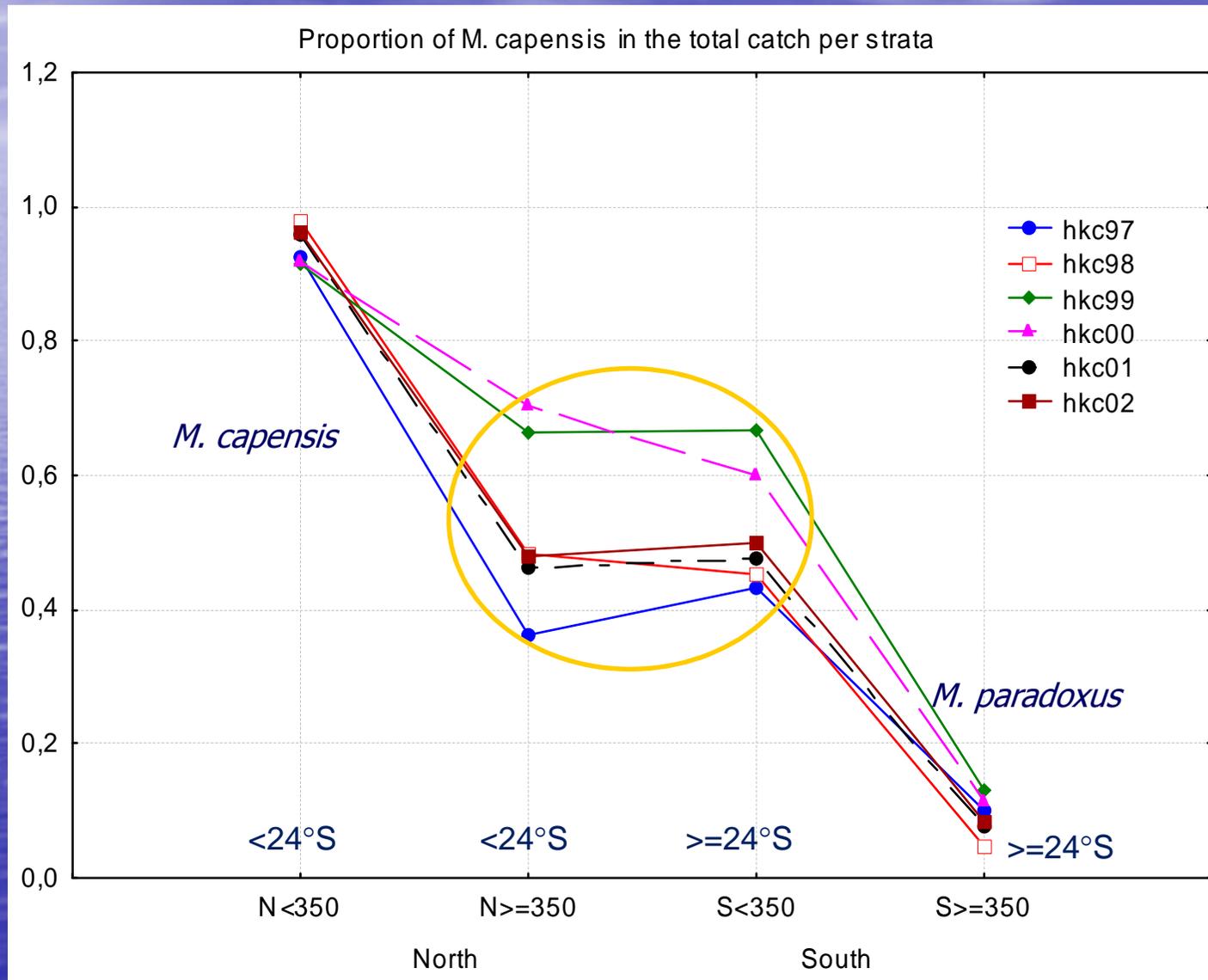
# Commercial Logbook data

- From 1992-1997 (daily), 1997- current (tow-by-tow)
- Spatial: vessel, position, time, depth
- Catches: combined species
- Trawlers and **longliners**

# Commercial Sampling (Observers)

- Spatial: vessel, **position**, time, depth
- Lengths: by species
- Some Biologicals: species, sex, **maturity**
- Trawlers and **longliners**
- About **1 trawl** a day

# Fishing Areas: 4 Main Regions



# More data...

- **Ageing lab:** age, length, weight, sex
- **Seal scats:** age, length (capensis only)
- **Trophic position:** length, weight, sex, carbon, nitrogen, fatty acids etc...

# Management Measures in place

- Fishing Rights to enter fishery
- TAC (**ASPM**) / Quotas to fish
- Minimum of 110 mm mesh sizes
- No trawling shallower than 200 m depth

## And Since 2006

- October closed season - **spawners**
- 200 m increased to 300 m south of 25°S – **small fish**

- **END** -