

SANDFISH PRODUCTION AND DEVELOPMENT OF SEA RANCHING IN NORTHERN AUSTRALIA

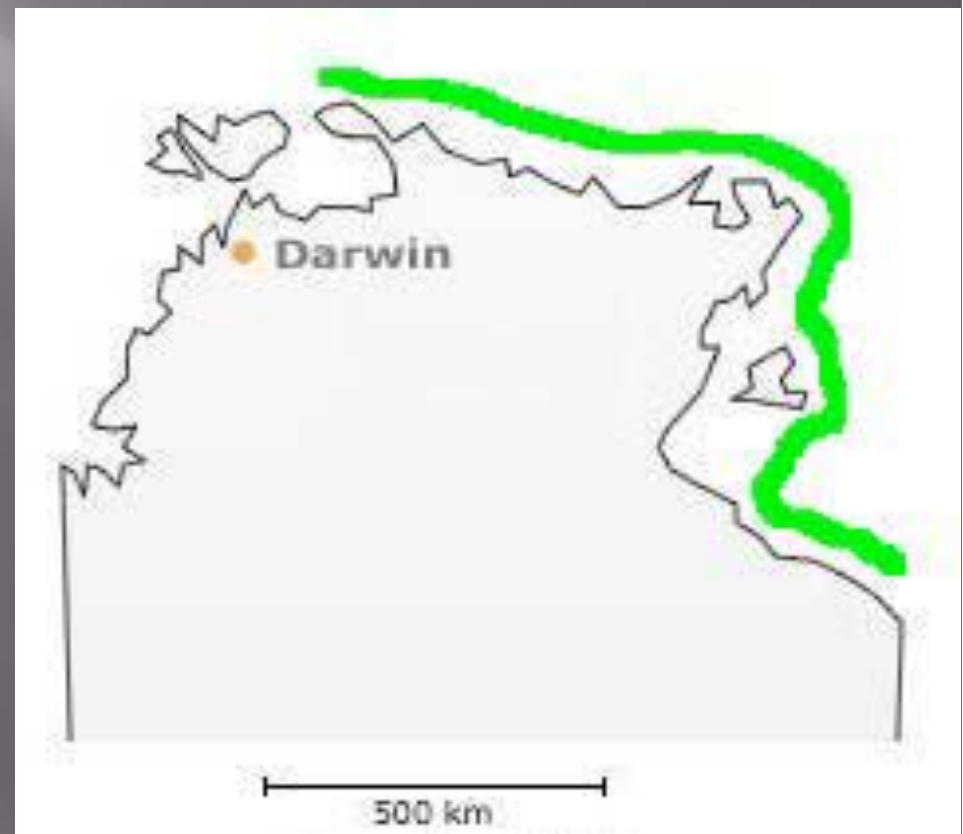
Will Bowman



The Fishery



- ▣ Fishing grounds extend from Cape Don to Queensland border
- ▣ Collection by hand or diving with hookah unit



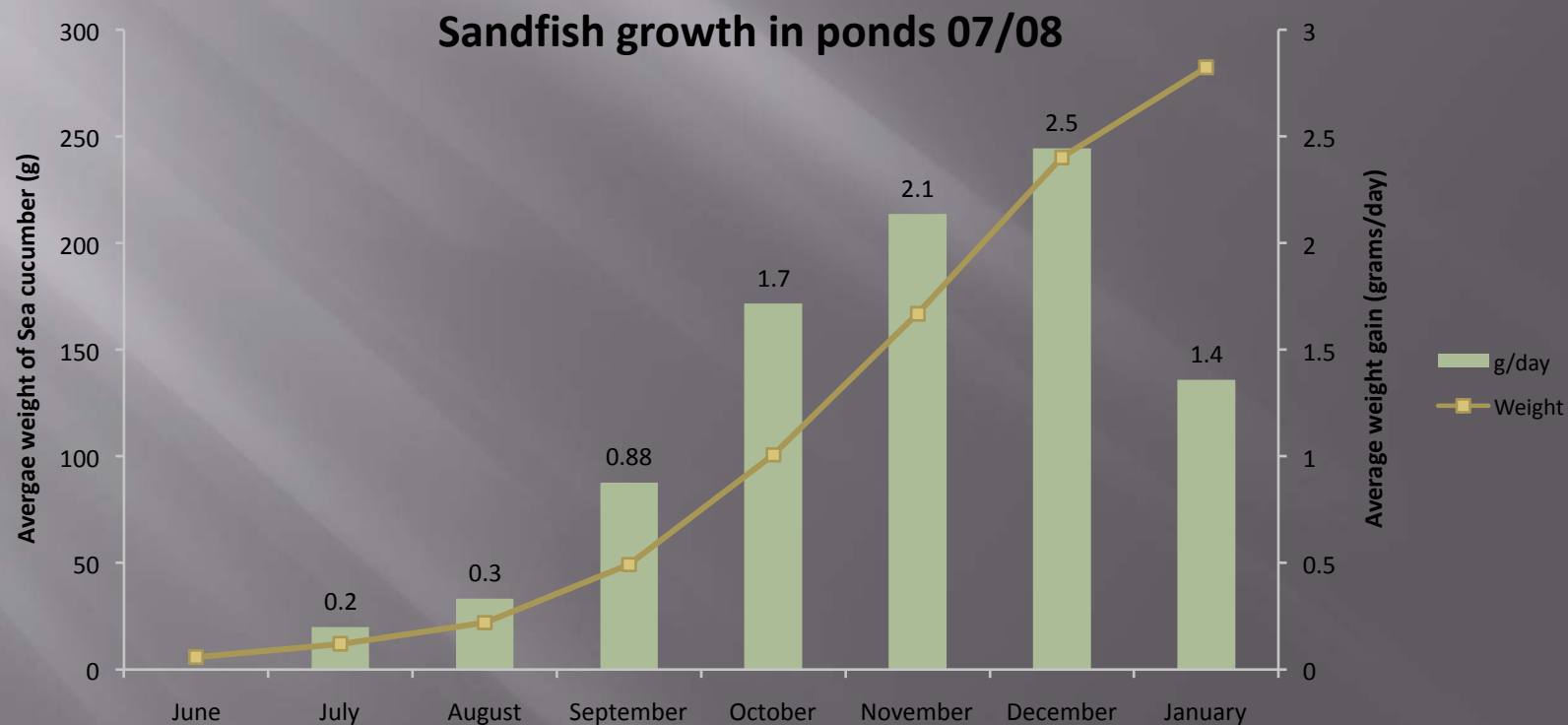
The Pilot Hatchery



- ▣ Began in September 2004 at the Darwin Aquaculture Centre (DAC)
- ▣ By late 2005 able to routinely run larvae through the hatchery depending on broodstock availability

Grow-out trials

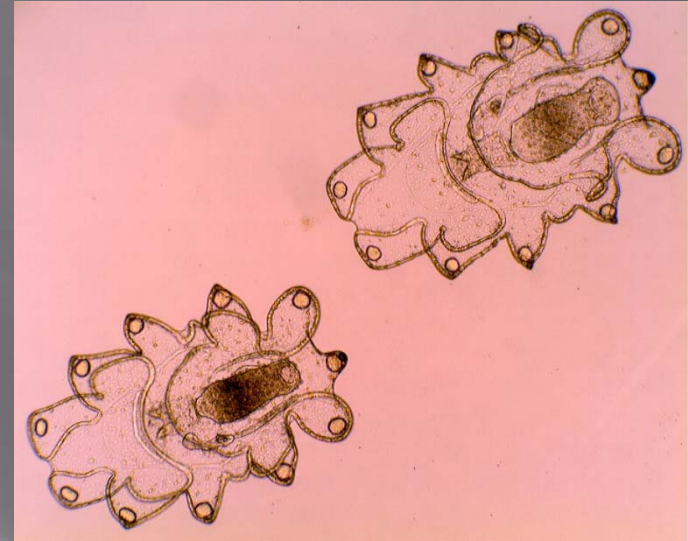
- ▣ 5g to 290g in seven months
- ▣ Growth rate peaked at 2.5g per day



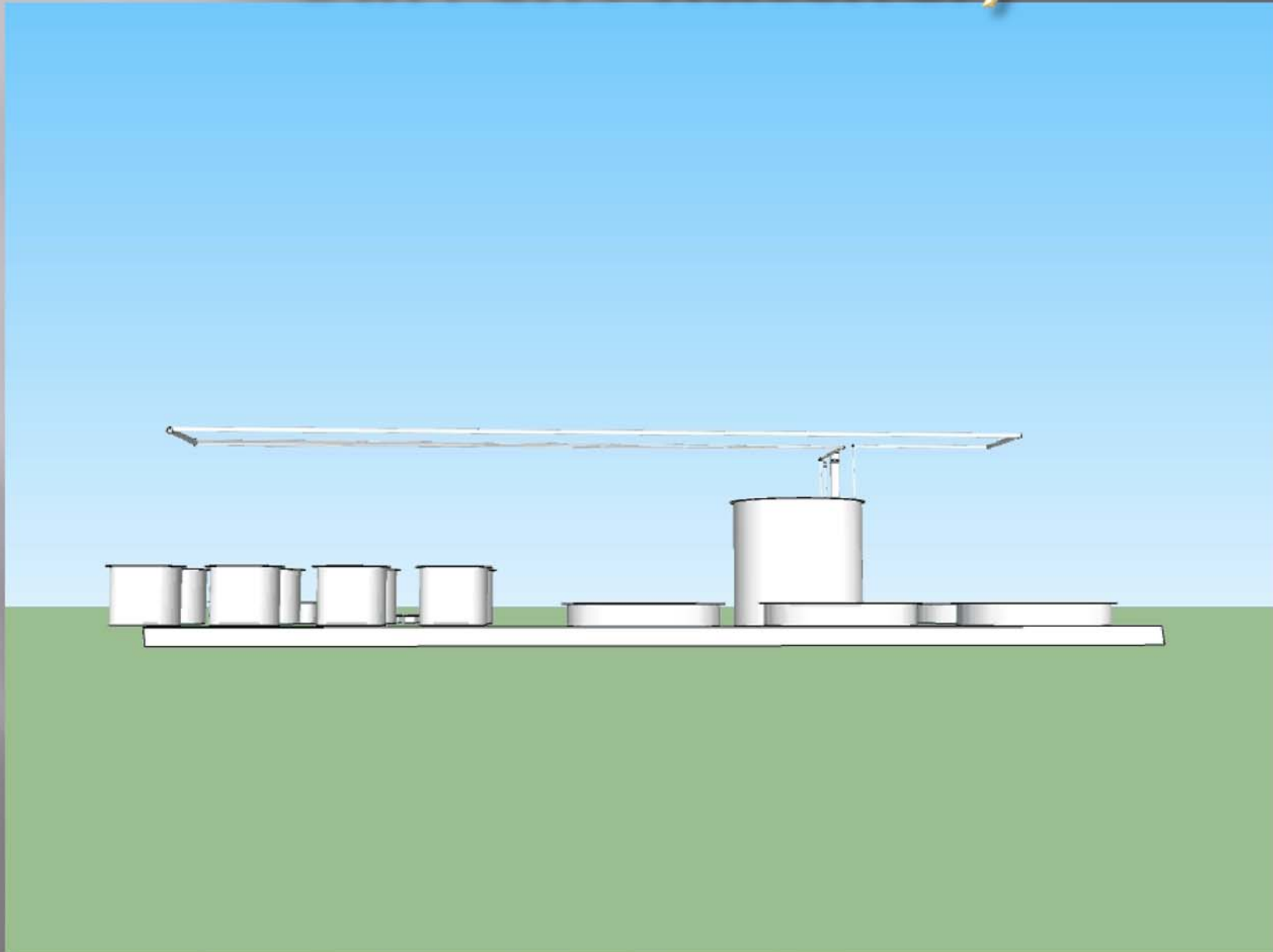
Expansion



- ▣ Relocated the hatchery within DAC to increase capacity
- ▣ Actively sought to secure farm site suitable for sandfish production



Current hatchery

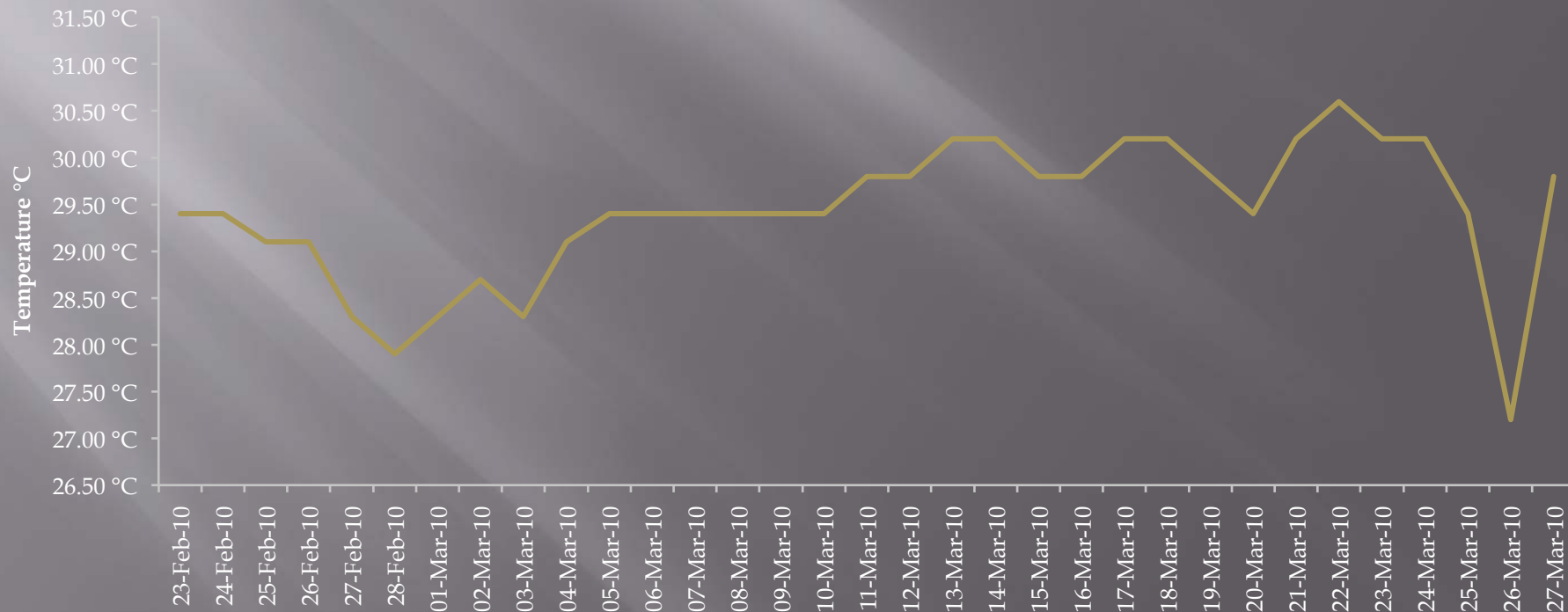


Hatchery parameters



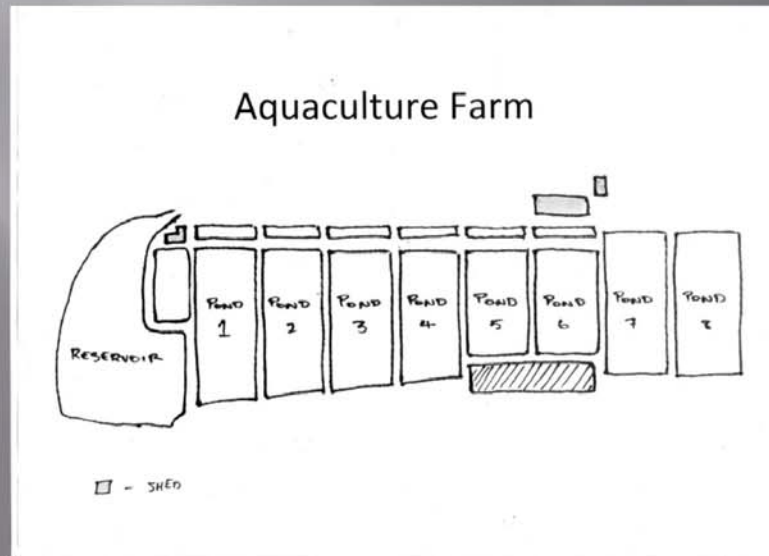
- ▣ Salinity maintained at 30‰
- ▣ Temperature range 27 °C – 31°C

Temperature 5t-1 Batch 02/10



Farm

- ▣ Six 0.1ha ponds
- ▣ Eight 1ha ponds
- ▣ 3ha currently under production
- ▣ 4ha being set up

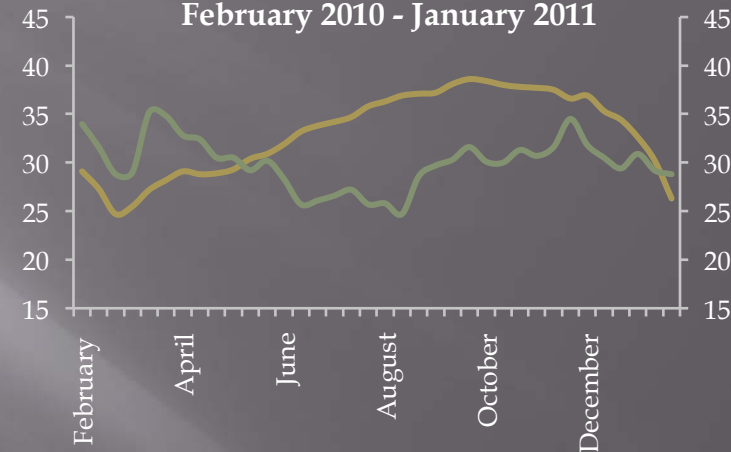


Farm Parameters

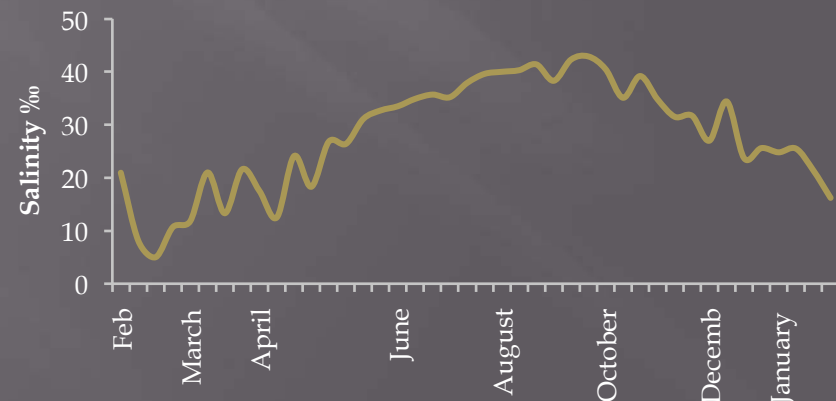


- ▣ Salinity in the reservoir 24.6‰ – 38.6‰
- ▣ Temperature range 24.7°C – 35.2°C
- ▣ Salinity at the discharge 5‰ - 42.9‰

Salinity & Temperature - Reservoir
February 2010 - January 2011



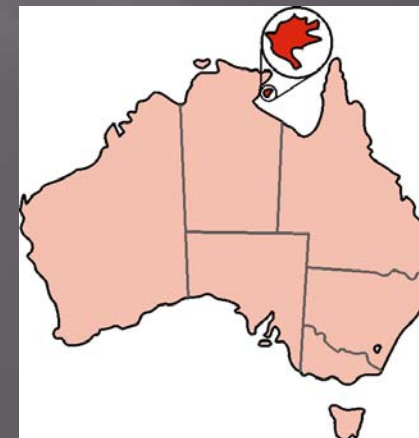
Salinity at Farm Discharge



Sea Ranching



- ▣ Umbakumba community – Groote Eylandt
- ▣ ‘Little Lagoon’



Site Characteristics



FOR

- ▣ Existing stocks
- ▣ Suitable habitat
- ▣ Good water visibility
- ▣ Low tidal range (up to 1.5m)
- ▣ Protected from weather

AGAINST

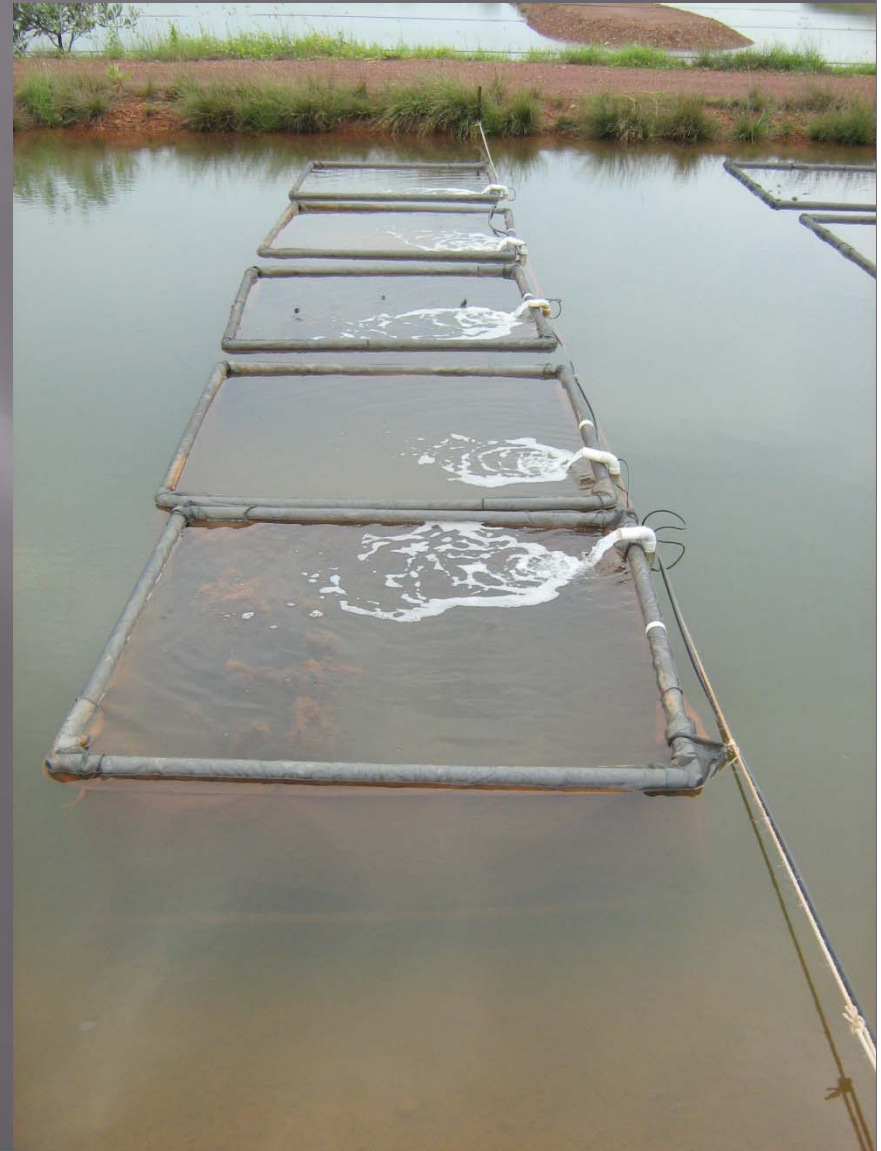
- ▣ Distance from hatchery
- ▣ Logistical difficulties



Future



- ▣ Pond management
- ▣ System design
- ▣ Viability of sea ranching
- ▣ Bio-economic model





Thank you