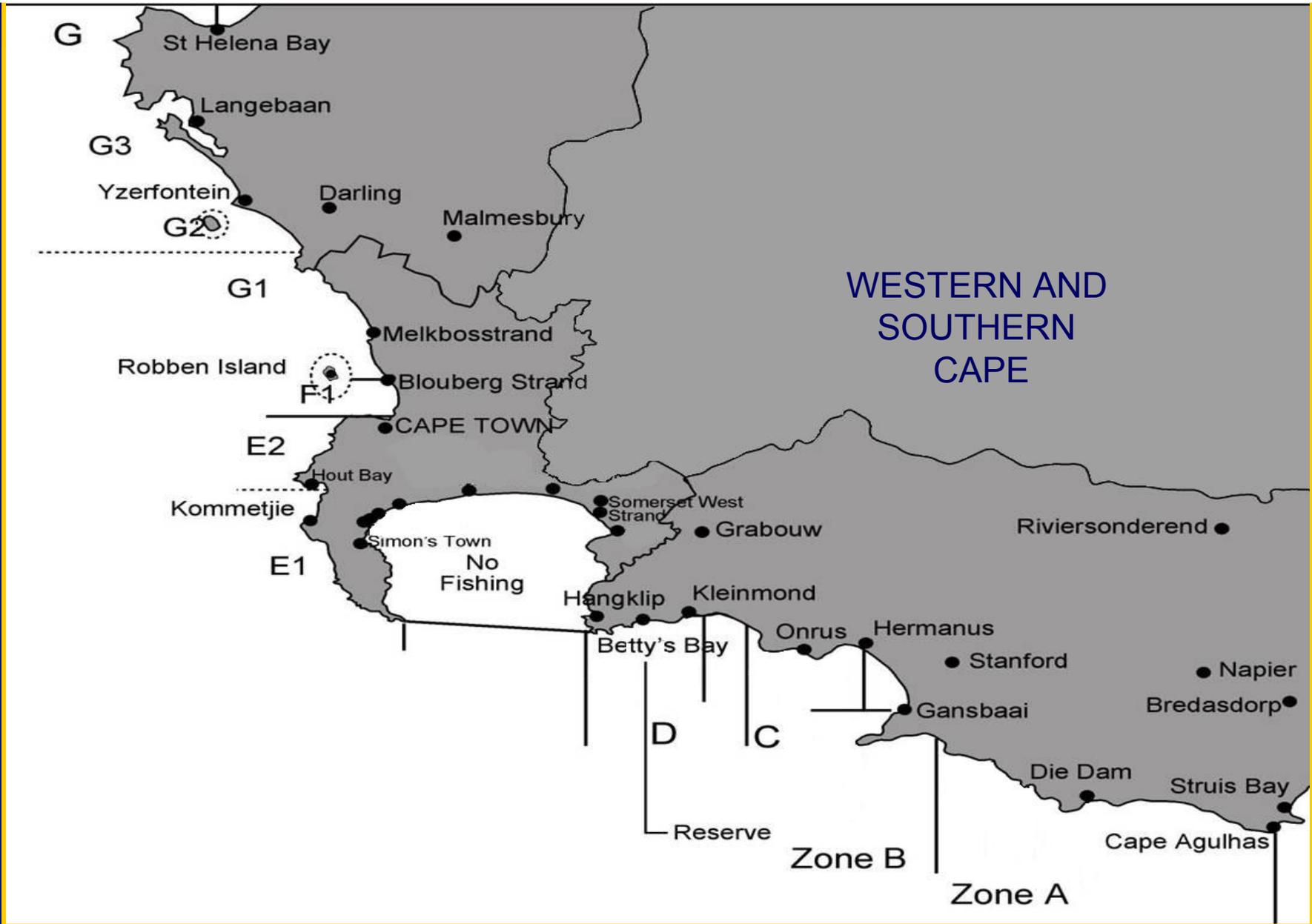


# **A BRIEF OVERVIEW OF THE ABALONE INDUSTRY IN SOUTH AFRICA**

**Andre du Plessis, CEO Mariculture, TerraSan Group**



*The legal catches are distributed along the coast using a permitting system which allocates the total catch to sub-areas.*

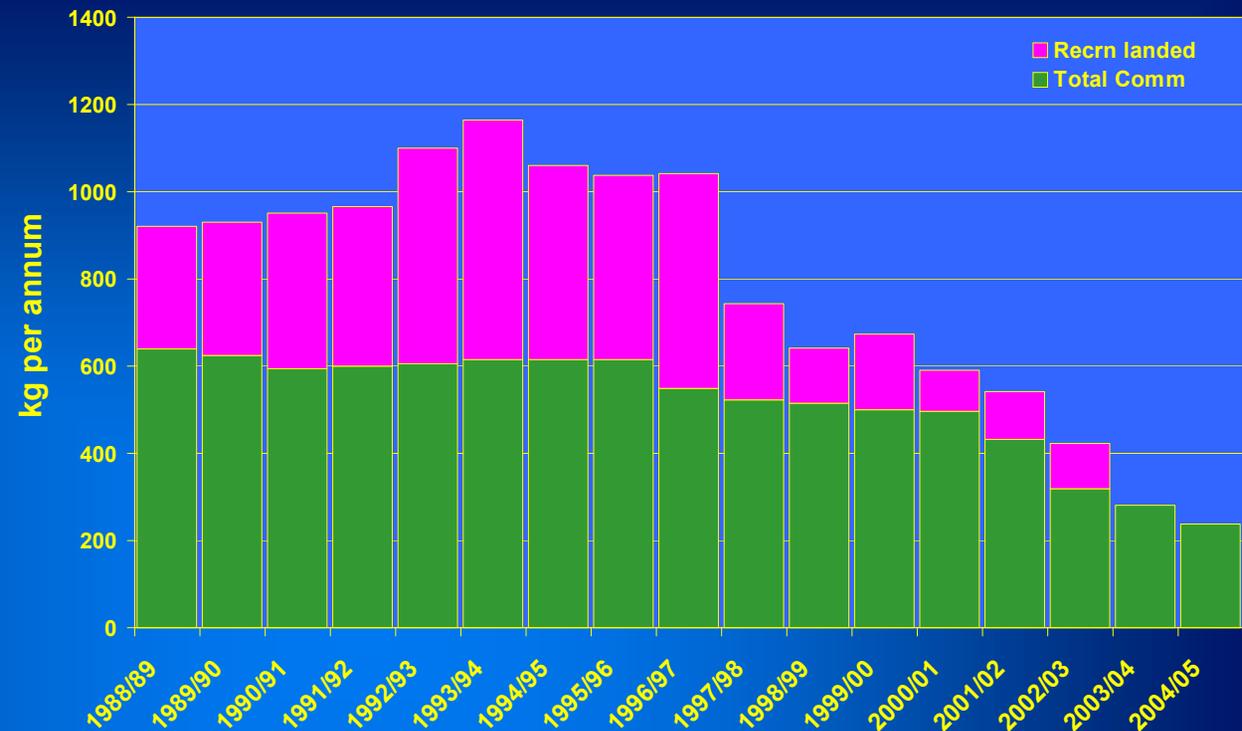
# THE ABALONE FISHERY

- ❑ Catch is allocated to rights holders by the state to control exploitation.



- ❑ Recreational diving of a limited amount / person / day was allowed until the 2002/2003 season.

# Annual Abalone landings (1988 – 2005)



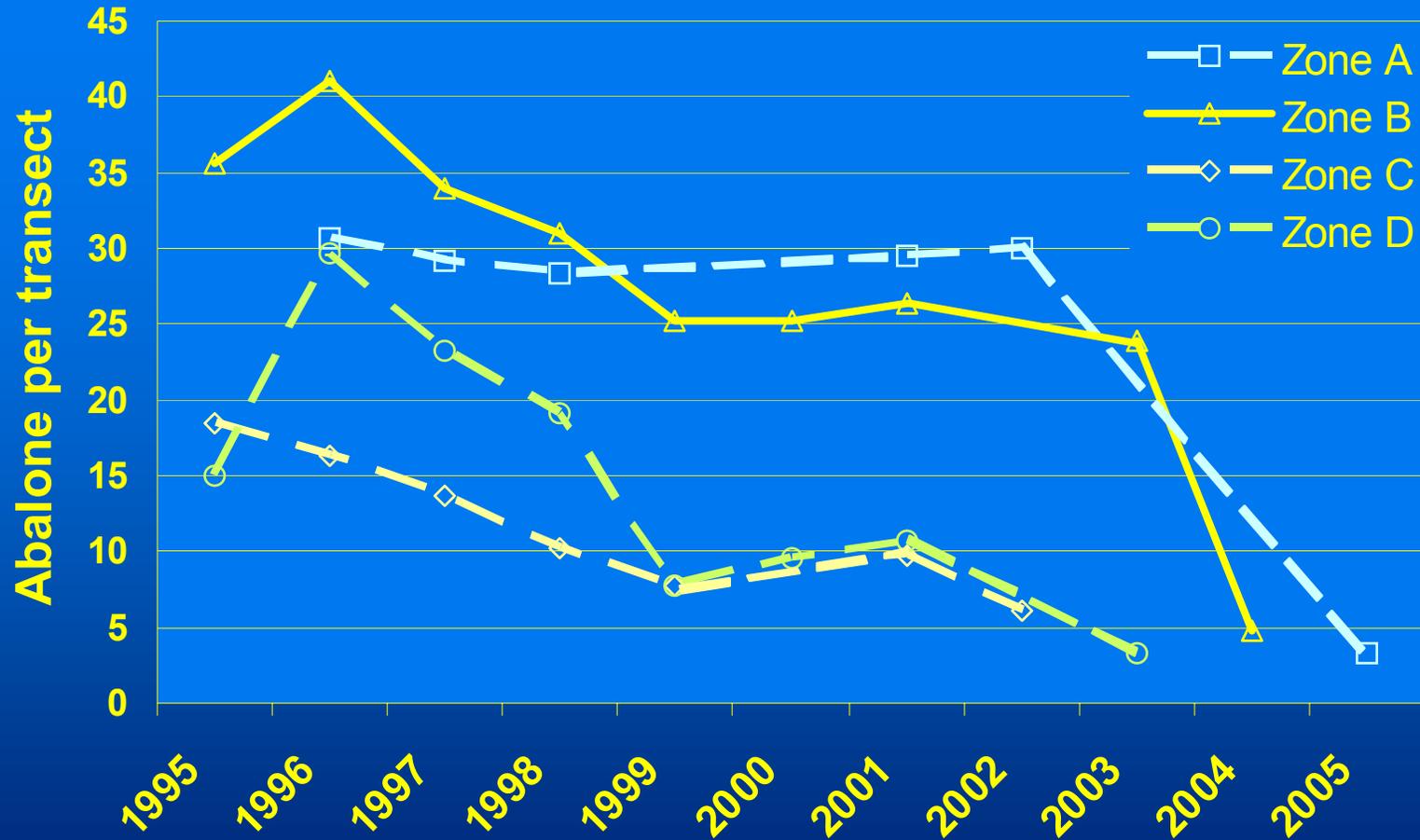
- ❑ Legal commercial catch – 600+ **tons** for many years
- ❑ The 2002/2003 recreational landed figure is based on declarations by recreational divers.
- ❑ Reduced TAC's from 1996/1997 and particularly from 2001/2002
- ❑ Current season Total Allowable Catch = 223 tons
- ❑ There is no doubt that the resource has been drastically over-exploited.

# ILLEGAL EXPLOITATION



- ❑ Poaching / stealing of abalone remains the major problem to the resource and the legal industry.
- ❑ The estimated poached tonnage for 2004/2005 is 1185 tons compared to the commercial TAC of 237 tons. (*Plaganyi, EE & A, MacKenzie 2005*)
- ❑ The result of the illegal take is likely to lead to the collapse of the resource.
- ❑ Research results since 1995 have shown that stock numbers have collapsed dramatically.

# FIA SURVEY RESULTS



*This shows the numbers of abalone over 100mm in length.  
They are counted between 2 and 6 metres in transects of  $\pm 60m^2$ .*

# PRODUCTS PRODUCED

- ❑ Canned abalone meat – \$900 to \$1 200 / case CIF
- ❑ Live – \$40 to \$50 / kg CIF
- ❑ Frozen meat – Very little produced, if any

±80% of production is canned

Prices have increased over the last few years due to the diminishing supply of canned and live products





Poached abalone is practically exclusively dried for the Hong Kong and China market. The quality of this product has increased over the last 5 years and although it is very specialised, impacts significantly on the overall demand from Hong Kong/China

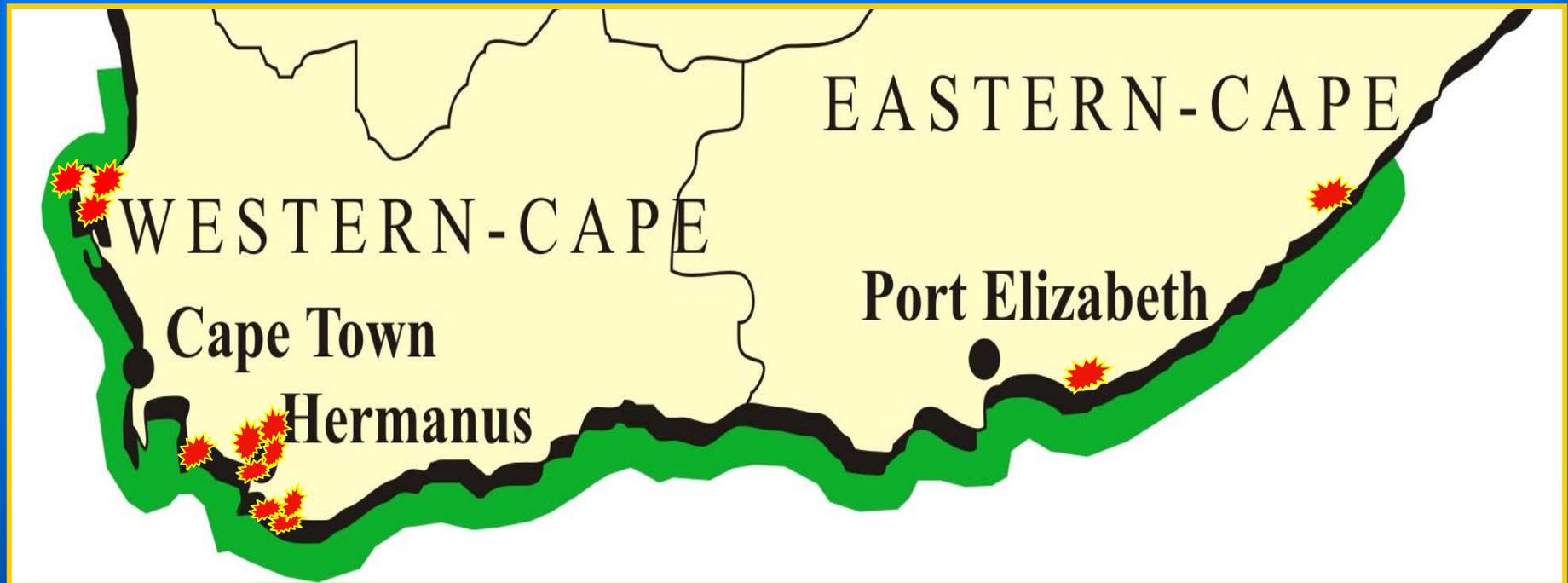
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# CONSTRAINTS



- ❑ Poaching / stealing abalone seems to be on the increase
- ❑ Factories no longer hold rights, which has had a negative impact on their viability. These rights have been redistributed to coastal communities in small units of  $\pm 500\text{kg}$ .
  - ❑ The opinion is that the allocations are so small that it provides for about 5 days work a year. This has probably led to an increase in temptation to poach.
- ❑ There are now more than 300 rights holders making control problematic
- ❑ Recruitment has been seriously impeded since 1994 due to the impact of rock lobster predation.
  - ❑ A shift in rock lobster into the abalone area East of Cape Hangklip has led to predation on young abalone recruits.

# ABALONE FARMING



- ❑ 13 Farms in South Africa
- ❑ 90% of the farms have their own hatcheries (to be self-sufficient and to reduce risk)
- ❑ Farms are exclusively land based with pump ashore systems
  - ❑ 2 have re-circ systems
  - ❑ 1 has a partial re-circ system



❑ 11 farms started prior to 1999 and only 2 since then

❑ WHY? After all, technology has advanced and know-how is available, markets are known and products have been developed.

1. Stricter permitting procedures

2. Environmental management and public approval processes

3. Strengthening Rand / US\$ is discouraging investment in new ventures

4. Concerns for over-supply internationally to the Asian markets

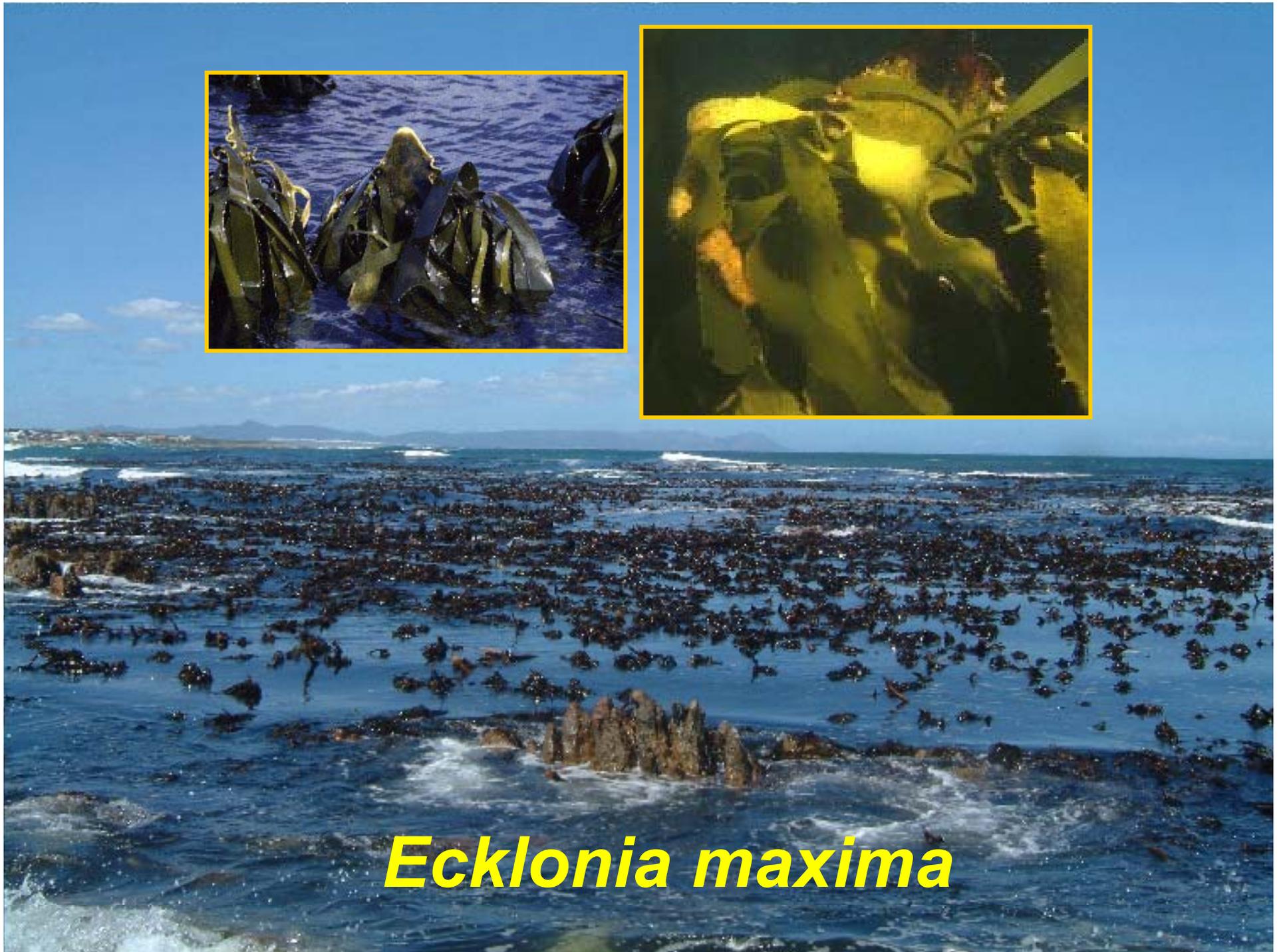


# FEEDING STRATEGIES

- Most farms use a mixture of kelp fronds (*Ecklonia maxima*) and **ABFEED**, a formulated dry feed pellet
- 2 farms use kelp only
- 1 farm uses **ABFEED** only
- 3 farms use a mixture of seaweeds which are cultivated

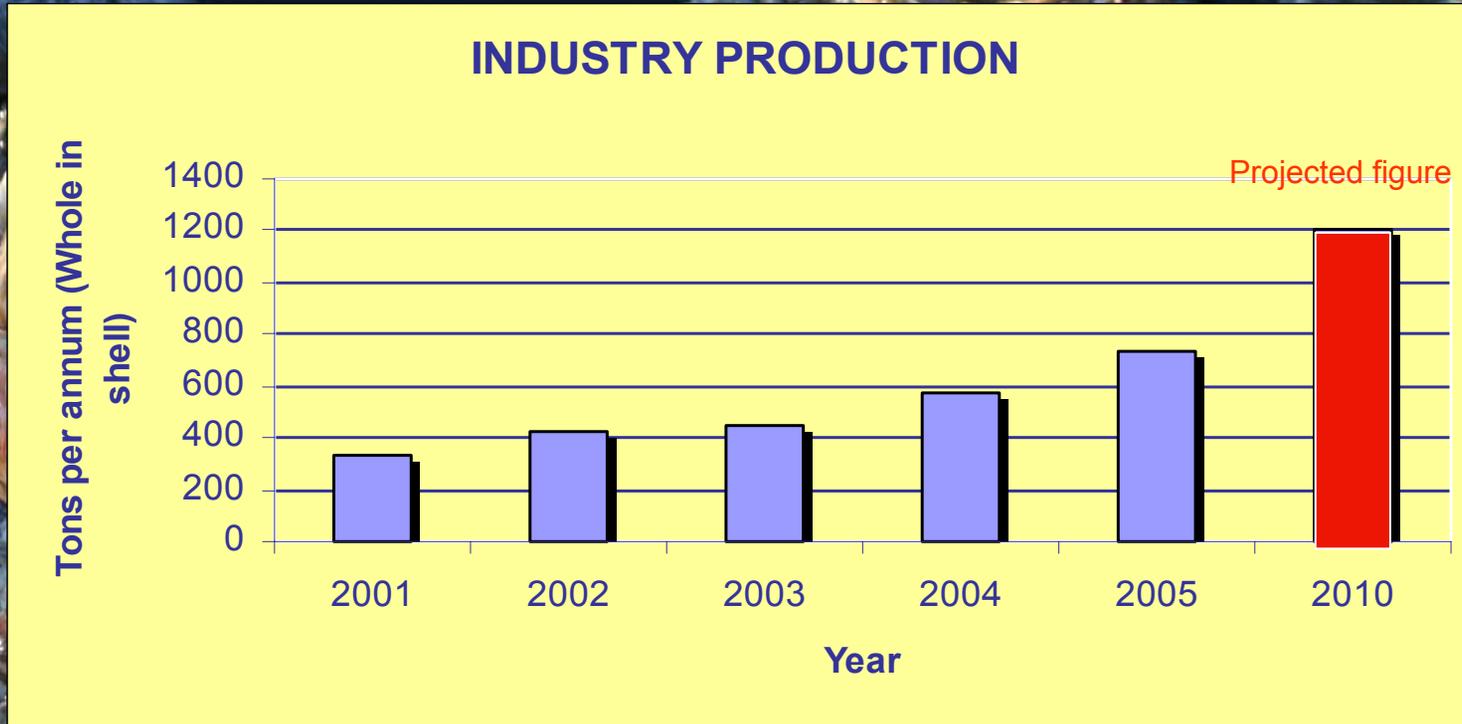


***Cultivation of seaweed to feed abalone***



***Ecklonia maxima***

# INDUSTRY PRODUCTION



- ❑ Some farms have reached 100 tons or more per annum
- ❑ Smaller farms aim for 50 to 60 tons per annum

# APPROXIMATE SALES MIX

☐	LIVE	-	62%
☐	CANNED	-	33%
☐	OTHER	-	5%





# PRICES

- ❑ **LIVE** - US\$ 34 to US\$ 38 / kg CIF
- ❑ **CANNED** - US\$ 600 to US\$ 850 / case CIF
- ❑ **Prices are size dependant**

## GOVERNMENT INCENTIVES AND SUPPORT

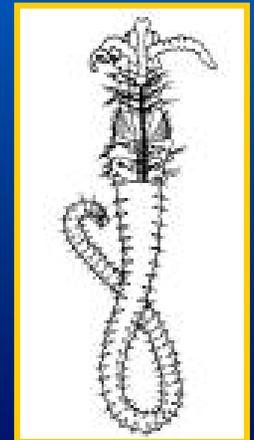
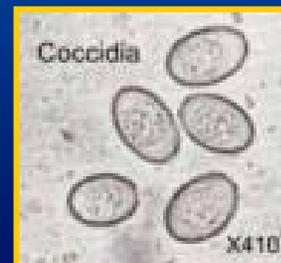
- ❑ Abalone farming started up in the 1990's with practically no support from the state.
- ❑ The “Small, Medium Enterprise Development Programme (SMEDP) of grants for aquaculture started up in 2003.
  - ❑ 30% of qualifying capital investment is refunded over a 3 year period
  - ❑ Also applicable to agriculture
  - ❑ Scheme has grinded to a halt due to a huge backlog in administration
- ❑ Funding for Research and Development has been on the increase however,
  - ❑ The Government “Frontier Programme” recently awarded R5 Million (US\$800 000) for R&D in 2006 and 2007
  - ❑ The Department of Trade and Industry and the Department of Science & Technology both allocate funds on a 1 : 1 or 1 : 2 basis with industry

# GOVERNMENT INCENTIVES AND SUPPORT

- ❑ An abalone genetics improvement programme has been launched recently
  - ❑ Initially a 5 year programme
  - ❑ Cooperatively funded and managed by:
    - ❑ 5 industry members
    - ❑ University of Stellenbosch, Department of Genetics
    - ❑ Department Trade and Industry is providing half of the funds as a grant

# ANIMAL HEALTH MANAGEMENT PROGRAMME

- ❑ Most farms belong to this programme managed by Dr. Anna Mouton
- ❑ Has played a big role in stock improvement
- ❑ Some parasites are present and closely monitored
  - ❑ None of these have a serious impact
- ❑ No diseases have been observed



# ACKNOWLEDGEMENTS

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- ❑ **Dr. Eva Plaganyi**, University of Cape Town, South Africa

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