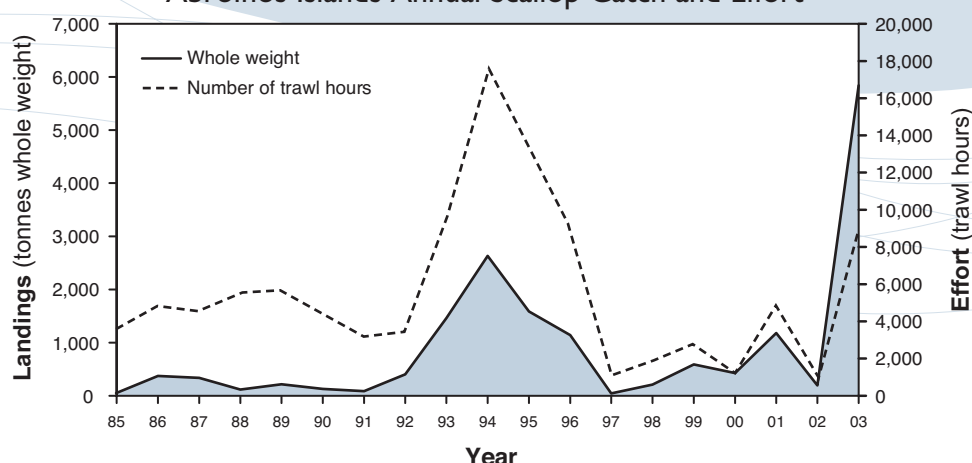


## Abrolhos Islands Annual Scallop Catch and Effort



ABROLHOS ISLANDS SCALLOP FIGURE I

Annual scallop landings for the Abrolhos Islands and Mid West Trawl Managed Fishery, 1985–2003.

## South West Trawl Managed Fishery Status Report

Prepared by M. Kangas, with management input by M. Holtz

### FISHERY DESCRIPTION

This fishery includes two of the state's smaller scallop fishing grounds, Fremantle and Geographe Bay. It is a multi-species fishery which targets western king prawns (*Penaeus latisulcatus*) and saucer scallops (*Amusium balloti*) using otter trawls.

#### Governing legislation/fishing authority

South West Trawl Management Plan 1989  
South West Trawl Managed Fishery Licence

#### Consultation

Department–industry meetings

#### Boundaries

The boundaries of this fishery are 'all the waters of the Indian Ocean adjacent to Western Australia between 31°43'27" south latitude and 115°08' east longitude where it intersects the high water mark at Cape Leeuwin, and on the landward side of the 200 m isobath'.

The area is further divided into four management zones, with a limited number of operators (indicated in brackets) permitted access to fish within each zone as follows:

Zone A	from 31°43'27" S to 32°16' S	(3 boats)
Zone B	from 32°16' S to 115°08' E	(12 boats)
Zone C	north-east of Cape Naturaliste	(0 boats)
Zone D	Comet Bay off Mandurah	(3 boats)

#### Management arrangements

The fishery is managed under an input control system limiting boat numbers, gear sizes and fishing areas. A total of 14

boats are licensed to operate in this fishery, some in more than one zone. Zone A and B boats may fish between 1 January and 15 November and Zone D boats can fish all year round. Although access to Zone C is permitted between 1 July and 30 September, following a Fishery Adjustment Scheme all four authorisations to fish in Zone C were removed prior to the 2003 season. The management plan also includes large closures to protect sensitive coastal habitats (including seagrass beds) and fish nursery areas such as Cockburn Sound, Warnbro Sound and inshore Geographe Bay.

#### Research summary

Research monitoring of the scallop stocks in this fishery is undertaken utilising fishers' monthly returns data.

### RETAINED SPECIES

Commercial production (season 2003):

Prawns 20 tonnes  
Scallops 12 tonnes whole weight

#### Landings

The total landings for the season were 20 t of western king prawns and 12 t whole weight of scallops. The catch of king prawns was 23% up on the catch of 2002 and 27% up on average catch levels for the last five years (14.3 t). The scallop catch was 50% up on catches of 2002. The fishery also lands a mixture of by-product species, of which the most abundant species recorded were 7 t of western sand whiting (*Sillago schomburgkii*), 4 t of blue swimmer crabs (*Portunus pelagicus*) and 2 t each of squid and mixed skates and rays.

#### Fishing effort/access level

A total of 428 days were recorded as being fished by 6 boats in 2003 compared to 258 days by 8 boats in 2002.

#### Catch rate

Not available.

#### Recreational component:

Nil

## STOCK ASSESSMENT

Assessment complete:	Not assessed
Exploitation status:	Not assessed
Breeding stock levels:	Not assessed

## NON-RETAINED SPECIES

Bycatch species impact: **Low**

Trawling for scallops is focused on a few small offshore areas, while the prawn catch is mainly taken from Comet Bay. An extensive study (Laurenson et al. 1993a) of the environmental effects of this fishery has shown that the fishery has minimal impact on bycatch species.

Protected species interaction: **Negligible**

Protected species susceptible to capture by trawling do not occur significantly in this fishing area.

## ECOSYSTEM EFFECTS

Food chain effects: **Low**

The food chain effects are considered to be low owing to the low overall exploitation rate and the very small percentage (< 5%) of the fishing area within the legislated boundary that is trawled annually.

Habitat effects: **Low**

Laurenson et al. (1993a) concluded that the fishery has minimal impact on the benthic sand habitats involved.

## SOCIAL EFFECTS

The estimated employment for the year 2003 was 18 skippers and crew.

## ECONOMIC EFFECTS

Estimated annual value (to fishers) for year 2003:  
**Prawns \$260,000**  
**Scallops \$40,000**

*Prawns:* Wholesale prices for prawns vary depending on the type of product and the market forces operating at any one time. Generally, prices for king prawns averaged \$13.20/kg.

*Scallops:* The estimated value of the catch has been based on the average wholesale price per kilogram obtained in the Shark Bay fishery, that is \$3.36/kg whole weight or \$16.80/kg meat weight. Meat weight is approximately 20% of the whole weight.

## FISHERY GOVERNANCE

Acceptable catch range for next season: **Not available**

### New management initiatives (2003/04)

Although a legislative amendment to provide for the introduction of the vessel monitoring system has been approved, it has been 'on hold' pending resolution of a number of issues.

## EXTERNAL FACTORS

The level of fishing activity and quantity of catch within the South West Trawl Managed Fishery is variable. This variability has largely been driven by the level of scallop recruitment to these grounds and also the product price paid to fishers. Variations in recruitment are naturally high in scallop stocks and in other Western Australian scallop fisheries are thought to be related to the flow of the Leeuwin Current.

## West Coast Blue Swimmer Crab Fishery Status Report

*Prepared by L. Bellchambers and D. Harris, with management input from H. Greif*

### FISHERY DESCRIPTION

The blue swimmer crab (*Portunus pelagicus*) is found along the entire Western Australian coast, in a wide range of inshore and continental shelf areas, from the intertidal zone to at least 50 m in depth. However, the majority of commercially fished stock is concentrated in the coastal embayments between Geopraphe Bay in the south and Port Hedland in the north.

Blue swimmer crabs comprise the bulk of the state's commercial inshore crab catches, with more than three-quarters of the annual catch coming from Shark Bay and Cockburn Sound. They are targeted using a variety of fishing gear. While commercial crab fishers in WA traditionally used set (gill) nets or drop nets, most have now converted to purpose-designed crab traps. Crabs are also retained as a by-product of the state's prawn and scallop trawl fisheries.

Blue swimmer crabs are also targeted by recreational fishers in Western Australia, particularly in the estuaries and bays between Fremantle and Albany and around Nickol Bay in the Pilbara. They represent the most important recreational inshore species in the south-west of Western Australia in terms of numbers caught (Sumner and Williamson 1999; Sumner et al. 2000). While the majority of recreational fishers use either drop nets or scoop nets, diving for crabs is also common.

### Governing legislation/fishing authority

Cockburn Sound (Crab) Management Plan 1995  
 Warnbro Sound (Crab) Management Plan 1995  
 Exceptions to the Fish Traps Prohibition Notice 1990 and Fish Traps Restrictions Notice 1994  
 Exemptions under Section 7 of the *Fish Resources Management Act 1994*

### Consultation process

Department–industry meetings