

SALMON FIGURE 1

Australian salmon catches for South Australia and Western Australia for the period 1977 to 2002.

Australian Herring Fishery

Management Summary

The majority of the commercial catch of Australian herring (*Arripis georgianus*) is taken using herring trap nets (also known as 'G' trap nets) from south coast beaches. Many commercial participants within the herring fishery are also involved in the salmon fishery.

South coast herring trap fishers are individually assigned to particular beaches. There is a closed season (10 February to 25 March each year) which closely matches the peak salmon migration season along the south coast.

Herring may also be commercially caught by beach seine and set net by any licensed commercial fisher holding an unrestricted fishing boat licence, provided the use of this method is permitted in the particular area and the waters being fished are not subject to other fishery management arrangements.

As herring is considered a prime recreational species, resource-sharing issues are likely to be a major consideration in future management arrangements for this fishery.

Governing Legislation/Fishing Authority

Fisheries Notice no. 478 (Section 43 order)
Condition 42 on a Fishing Boat Licence

Consultation Process

Department–industry meetings

Research Summary

The annual assessment of the status of the herring stock has been undertaken utilising CAES data supplied by industry and detailed biological information from a national research project conducted between 1996 and 1999.

Currently an Australian herring stock assessment model has been developed using all available research data and CAES information from Western Australia and South Australia and is in the final stage of preparation. Additionally there are two FRDC projects which are nearing completion. The first is focused on the development of a juvenile index of recruitment for Australian herring, while the second is using time-series analysis of historic commercial catches. Both are due for completion by the end of 2003 and will assist in the accurate prediction of herring catches.

The following status report summarises the research findings for this fishery.

Australian Herring Stock Status Report

Prepared by S. Ayyazian and G. Nowara

FISHERY DESCRIPTION

Boundaries and access

During 2002 there were 10 licensees (most of whom are also Australian salmon fishers) permitted to take herring using 'G' trap nets set on nine nominated south coast beaches. On the west coast, the Cockburn Sound (Fish Net) Managed Fishery specifically fishes for Australian herring. In addition, small

ECONOMIC EFFECTS

Estimated annual value (to fishers) for year (2002):
\$192,500

This estimate is for the south coast trap net fishery only.

FISHERY GOVERNANCE

Acceptable catch range: South coast 450–1,200 tonnes

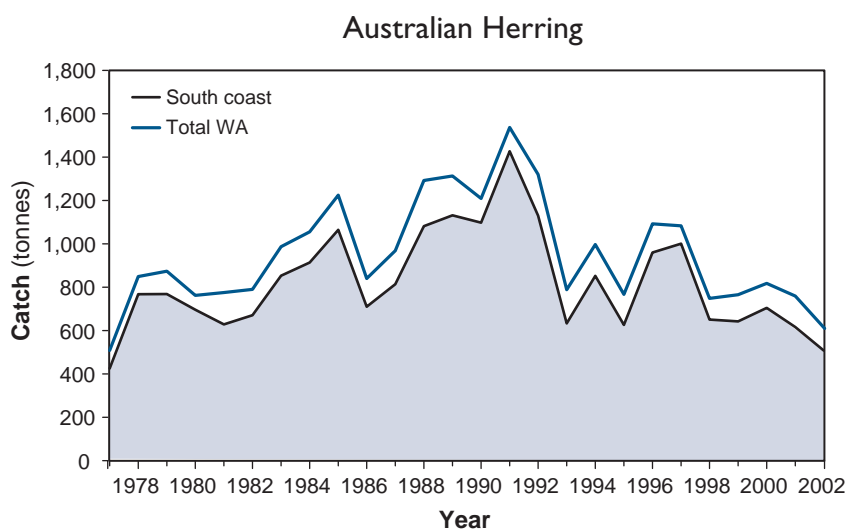
The acceptable catch range for the south coast Australian herring trap net fishery under the current management regime is 450–1,200 t (rounded to the nearest 50 t). This projection is derived by double exponential smoothed forecasting of the past annual catches to 1998 and the variation of observations around the predictions. The confidence intervals are set at 80%. Future annual catch values which fall outside of this range will be investigated. Where consecutive values occur outside of the range, management changes to protect the stock may need to be considered.

Using the above methods, the commercial west coast herring catch is expected to be between 60 t and 125 t. The 2002 annual commercial west coast catch was 92 t, within the range of acceptable catch limits.

The current catch of 508 t for the south coast fishery is within the range set, but catches in recent years have been towards the lower end of the range, partly as a result of the reduction in the number of teams fishing. Therefore, the likely catches in relation to environmental influences may need to be recalculated as part of the implementation of the new stock assessment techniques.

EXTERNAL FACTORS

Until 1991, the catch trend was increasing. As is the case for Australian salmon, a proportion of the herring resource is recruited from South Australian nursery areas. In most years, however, 'local' recruitment is thought to be far more important to the Western Australian fishery than recruitment from South Australia. For the west coast sector especially, it is believed that protected marine habitats such as Geographe Bay, rather than the south coast or South Australia, provide the main nursery areas and source of recruitment. Thus, historical catch records between 1976 and 1998 indicate that the size of the west coast catch is unrelated to the size of the south coast catch (correlation coefficient = 0.38; non-significant).



HERRING FIGURE 1

Catches of Australian herring from the south coast and the total Western Australian catch for the period 1977 to 2002.

