

PEEL-HARVEY

The Decline and Rescue of an Ecosystem

Excerpt from book by Keith Bradley
1997

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Weeds Take Hold

Excerpts from Chapter 4 'Troubled Waters: Emergence of the problem', pp. 75, 77, 82-86; and Chapter 5, p. 92.

In 1947, Fisheries Inspector J. Bramley questioned whether *'Perhaps the C.S.I.R.O. could evolve some method to counteract the weed that is taking hold of the estuary at Mandurah. Where the netting grounds once used to be is now covered by this thick weed and it is impossible to fish there. It is general throughout the estuary now.'*

'By the late 1950s, infestations of pink slime had become a regular hazard to fishers. It was particularly severe in both Peel Inlet and Harvey Estuary during the dry winters of 1957 and 1958, when the ocean bar was almost closed. By this stage, concern had spread beyond the fishing industry. Local businesspeople began to appreciate the impact of the weed on recreational fishing and on the tourist dollars that flowed into Mandurah during summer.'

'By 1960, many possibilities had been canvassed as causes for the decline in the estuary. Wet winters were blamed in 1946-1947; dry winters in 1958-1959. The influx of fresh water from increased drainage had been suggested as the cause of the problem early in the century, then used as a possible solution in the Serpentine in 1948; now locals were concerned that a reduction in fresh water flow, following dam construction, was the culprit. In 1959, the Minister for Fisheries had pointed out the importance of nutrients in maintaining a healthy

estuary. But in 1957, the Fisheries Inspector had reflected local concern at the possible impact of superphosphate washing into the estuary. If these arguments and counter-arguments seem confusing when viewed in retrospect, it can be imagined how much more so they would have seemed at the time, especially as the estuary changed considerably anyway, regardless of human activity on its shores.'

'However, the weed problem was only really starting to emerge. Several species of green algae were becoming established in the estuary. One of these, *Cladophora* (known locally as goat weed), grew as unattached balls that lined the estuary bed; these balls would float to the surface, then drift to the shallows. In 1959, clumps had washed up on the shore at Dawesville'.

'By the late 1960s, *Cladophora* was accumulating on the shores of the estuary, and the smell was causing much local concern.' 'Rotting weed gave off hydrogen sulphide gas, better known as 'rotten egg' gas. By the summer of 1968, there was enough gas in the air to nauseate people, to drive summer visitors back to the city, and to infiltrate the dining rooms of Coodanup, where it turned the silverware black.'

'Other green algae were also present, but it was not until the 1980s that dense growths of the weeds *Chaetomorpha* and *Enteromorpha* replaced *Cladophora* as the dominant weed in Peel Inlet.'

'While weed growths were causing major local concern, pressure on the estuary was still increasing. Large-scale clearing and drainage for agriculture continued, and in 1968 the Public Works Department embarked on a program that saw a doubling of drain capacity by 1975, mainly through the enlargement of existing drains. As beef prices boomed during the 1960s, many farmers increased their fertiliser application rates. Establishment of intensive industries such as piggeries began, and in 1968 councillors from the Shire of Serpentine-Jarrahdale were blaming these for pollution of previously clean drains and streams. Concern was expressed that by September each year, "not one brook in the district was fit for human consumption" - a reminder to us today that they once were!'

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Chronology

1957: The local Fisheries Inspector's Report notes 'Since the winter months ... Pink Weed has become worse and is now seriously hampering fishermen's catches ... the main reasons advanced for it are the superphosphate washed into the estuaries ... and the condition of the bar'.

Feb 1960: Mandurah Chamber of Commerce and Licensed Fishermens Assoc. asked the Minister for Fisheries 'that something be done to counteract the spread of an algal organism which became tangled with their fishing nets'.

1970: Macro-algal wracks became a substantial nuisance, and "weed" harvesting began.

1990's: Macro-algal production increased for a period after the Dawesville Channel opened. The DoW regularly collected tens of thousands of cubic metres of floating and beach wrack weed annually.

Since 2000: There has been a progressive reduction in weed growth, and a return of seagrasses to the system.

2009: Weed harvesting by the DoW ceased due to low volumes of wrack accumulating.



2007 - Weed harvester removing weed from Cox Bay, Mandurah