

South Australian Maritime Heritage Program 1970s - 2002

Projects, Activities and Bibliography



The end result of the 26 years work on the Holdfast Bay Project by SUHR was the development of an exhibition which is now a major feature in the Bay Discovery Centre in the Old Town Hall at Glenelg. The above photographs provide a glimpse of this exhibition

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Introduction

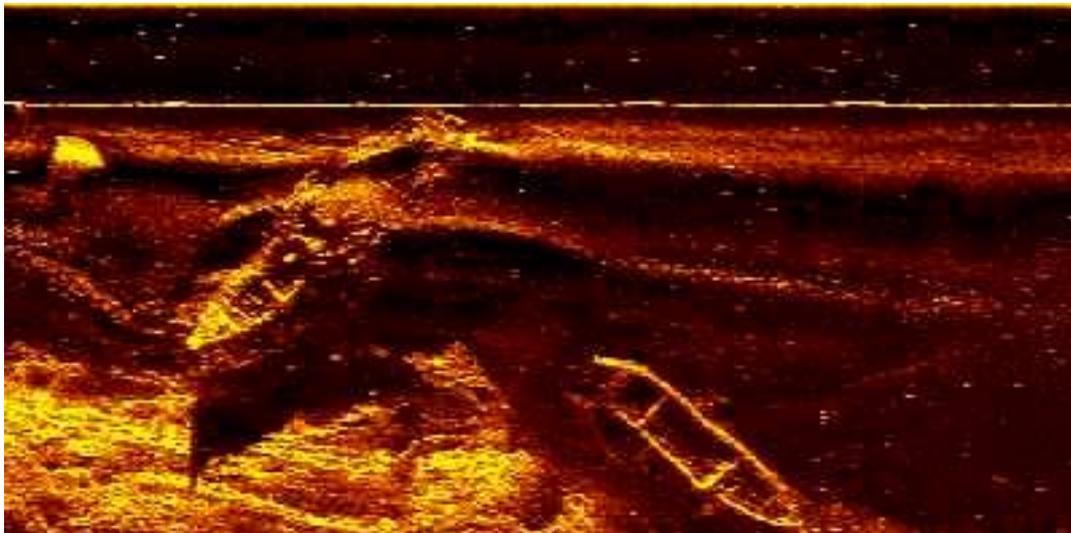
The aim of this document is to provide a general reference document for researchers, students and the general community on the South Australian maritime heritage program.

It contains:

- A chronology of the main activities, projects and issues that have helped shape the current maritime heritage program since its inception in 1981;
- Further details on some of the main activities and projects;
- A bibliography of all the articles, books, booklets, brochures written about the South Australian maritime heritage program activities, in addition to some other relevant texts.

It will be upgraded with details on additional projects and activities as they are implemented.

Additional information can be found on the Heritage Branch website www.heritage.sa.gov.au or by phoning 8204 9245.



A side scan sonar image of two shipwrecks on the bed of the River Murray adjacent to the wharf at Murray Bridge

CHRONOLOGY OF PROJECTS AND ACTIVITIES

Note: The Heritage Branch of the Department for Environment and Heritage implemented the following projects and activities, sometimes in association with other agencies and groups, such as the Society for Underwater Historical Research (SUHR). The name of the Heritage Branch, as well as the name of the Department changed several times over this 21-year period, but for the sake of uniformity, the current names are used.

PROJECT TITLE: *Water Witch* survey and partial excavation

DATE or DATE RANGE: 1970-84

LOCATION: Moorundie (Blanchetown) River Murray, South Australia

ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery) & SUHR

BRIEF DESCRIPTION: Predisturbance survey and partial excavation of the *Water Witch* historic shipwreck

REFERENCE: Jeffery, 1987; Jeffery, 1992a, 1992b

PROJECT TITLE: Holdfast Bay anchorage excavation

DATE or DATE RANGE: 1974--2000

LOCATION: Glenelg, Adelaide, South Australia

ORGANIZATION & or LEADER: SUHR

BRIEF DESCRIPTION: Survey and excavation of material associated with old jetty including material thrown and unintentional discarded from the jetty area, and ships anchoring there.

REFERENCE: Drew, 1983; Richards, 2001; Richards & Lewczak, 2002,

PROJECT TITLE: *Loch Vennachar* survey

DATE or DATE RANGE: 1976-1982

LOCATION: Kangaroo Island

ORGANIZATION & or LEADER: SUHR

BRIEF DESCRIPTION: Survey of newly discovered shipwreck and recovery of some material including recovery and conservation of anchor

REFERENCE: Jeffery, 1980; Kentish & Booth, 1983.

PROJECT TITLE: Morgan wharf

DATE or DATE RANGE: 1977-1980

LOCATION: Morgan, River Murray

ORGANIZATION & or LEADER: SUHR (Brian Marfleet)

BRIEF DESCRIPTION: Survey and recovery of material located on the river bed adjacent to the Morgan wharf

REFERENCE: Marfleet, 1980

PROJECT TITLE: *Santiago* documentation and corrosion work

DATE or DATE RANGE: 1979-95

LOCATION: Port Adelaide River

ORGANIZATION & or LEADER: Heritage Branch, SUHR, Flinders University Archaeology Society, University of South Australia, Bob Sexton

BRIEF DESCRIPTION: Documentation of vessel's lines and layout, implementation of stabilisation through the use of anodes and a painting system

REFERENCE: Kentish, 1995

PROJECT TITLE: *Grecian* survey and recovery
DATE or DATE RANGE: 1979
LOCATION: Outer Harbor, Port Adelaide
ORGANIZATION & or LEADER: SUHR (Ron Coleman)
BRIEF DESCRIPTION: Survey and recovery of material from Grecian historic shipwreck
REFERENCE: Coleman, 1979

PROJECT TITLE: Declaration of first SA shipwreck and maritime archaeological site
DATE or DATE RANGE: 1980
LOCATION: South Australia
ORGANIZATION & or LEADER: SA Museum
BRIEF DESCRIPTION: Declaration of the Holdfast Bay jetty and anchorage (1975) and the *Loch Vennachar* shipwreck (1976) under the *Aboriginal and Historic Relics Preservation Act 1965*
REFERENCE: Jeffery, 1983

PROJECT TITLE: Proclamation of Commonwealth *Historic Shipwrecks Act 1976* in SA
DATE or DATE RANGE: 8 October 1980.
LOCATION: Australian Territorial Waters off South Australia
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: Protection of 'Commonwealth' historic shipwrecks
REFERENCE: Jeffery, 1983; Jeffery, 1987a; Jeffery, 1999; Jeffery, 2002

PROJECT TITLE: Margaret Brock Reef shipwreck survey
DATE or DATE RANGE: 1981
LOCATION: Margaret Brock Reef, south east of South Australia
ORGANIZATION & or LEADER: Heritage Branch and Terry Drew
BRIEF DESCRIPTION: Survey and inspection of shipwrecks located on the Margaret Brock Reef
REFERENCE: Drew & Jeffery, 1982

PROJECT TITLE: Proclamation of State *Historic Shipwrecks Act 1981*
DATE or DATE RANGE: 3 December 1981
LOCATION: Waters within the limits of South Australia
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: Protection of 'State' historic shipwrecks
REFERENCE: Jeffery, 1982b; Jeffery, 1999

PROJECT TITLE: *Tigress* 'rescue archaeology'
DATE or DATE RANGE: 1982
LOCATION: Port Noarlunga (metropolitan Adelaide)
ORGANIZATION & or LEADER: SUHR
BRIEF DESCRIPTION: 'Rescue archaeology' of artefacts from the *Tigress* (1848) wrecksite
REFERENCE: Jeffery 1982a; Jeffery & Powell 1987

PROJECT TITLE: 2nd Southern Hemisphere Conference on Maritime Archaeology
DATE or DATE RANGE: March 1982
LOCATION: Adelaide
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery)
BRIEF DESCRIPTION: International Conference
REFERENCE: Jeffery & Amess (Eds.), 1983

PROJECT TITLE: *City of Adelaide* lifeboat
DATE or DATE RANGE: 1983-85
LOCATION: Port Lincoln
ORGANIZATION & or LEADER: Heritage Branch, volunteers and Axel Stenross Maritime Museum
BRIEF DESCRIPTION: Survey of historic vessel by Bob Sexton, corrosion analysis by Peter Kentish (University of South Australia) and implementation of painting and cradle work
REFERENCE: Jeffery, 1989b; Jeffery 1991

PROJECT TITLE: *Geltwood* historic shipwreck survey and recovery
DATE or DATE RANGE: 1983-97
LOCATION: South of Southend in the south east of South Australia
ORGANIZATION & or LEADER: Heritage Branch and volunteers
BRIEF DESCRIPTION: Survey of shipwreck site and recovery of two anchors; one on display at Millicent, the other overlooking Rivoli Bay, Southend
REFERENCE: Kenderdine, n.d.

PROJECT TITLE: Whaling and sealing station survey
DATE or DATE RANGE: 1984-1985
LOCATION: Through-out South Australia (mainly west coast)
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: Survey and documentation of the whaling and sealing stations
REFERENCE: Kostoglou, P., and McCarthy, J., 1991

PROJECT TITLE: *Zanoni* survey and excavation
DATE or DATE RANGE: 1986-1988
LOCATION: Off Ardrossan, Gulf St Vincent
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery)
BRIEF DESCRIPTION: Predisturbance survey and partial excavation of the *Zanoni* historic shipwreck
REFERENCE: Jeffery, 1988; Jeffery, 1992, 1992b; Jeffery and Sexton, 1996 (Unpublished);

PROJECT TITLE: *Buffalo* search, survey and partial excavation
DATE or DATE RANGE: April, 1986
LOCATION: Whitianga, New Zealand
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery) and volunteers
BRIEF DESCRIPTION: Sponsored by the Hindmarsh Building Society, a search, survey and partial excavation of South Australia's 'founding' ship in NZ
REFERENCE: Jeffery, 1989

PROJECT TITLE: South East regional shipwreck survey
DATE or DATE RANGE: 1986--1989
LOCATION: South East of South Australia
ORGANIZATION & or LEADER: Heritage Branch (Paul Clark)
BRIEF DESCRIPTION: Research into and survey of shipwrecks located in the south east region of South Australia
REFERENCE: Clark, 1990; Jeffery & Kenderdine, 1991, Jeffery 2001

PROJECT TITLE: Shipwreck survey, Sir Josephs Bank Group
DATE or DATE RANGE: 1987
LOCATION: Spencer Gulf
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery)
BRIEF DESCRIPTION: Survey of shipwreck sites in Sir Joseph Banks Group of Islands
REFERENCE:

PROJECT TITLE: Establishment of Adelaide's Underwater Heritage Trail
DATE or DATE RANGE: 1989
LOCATION: Metropolitan Adelaide
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: A trail comprising four shipwrecks, each marked with an underwater plaque and further interpreted with a brochure
REFERENCE: Anon, 1989

PROJECT TITLE: Kangaroo Island regional shipwreck survey
DATE or DATE RANGE: 1991--1993
LOCATION: Kangaroo Island
ORGANIZATION & or LEADER: Heritage Branch (Rob McKinnon)
BRIEF DESCRIPTION: Research into and survey of shipwrecks located around Kangaroo Island.
REFERENCE: McKinnon, 1993

PROJECT TITLE: Establishment of Wardang Island Maritime Heritage Trail
DATE or DATE RANGE: 1991
LOCATION: Port Victoria, Yorke Peninsula
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: Comprising eight shipwrecks, each marked with an underwater plaque and further interpreted with a waterproof booklet and six land based signs
REFERENCE: Anon, 1991; Jeffery, 1993

PROJECT TITLE: South east shipwreck artefact survey
DATE or DATE RANGE: 1991
LOCATION: South east of South Australia
ORGANIZATION & or LEADER: Heritage Branch (Sarah Kenderdine)
BRIEF DESCRIPTION: Documentation of artefacts from south east shipwrecks and held in various collections, predominantly in regional museums in the south east
REFERENCE: Kenderdine, 1991

PROJECT TITLE: 10th Annual AIMA Conference
DATE or DATE RANGE: 1991
LOCATION: University of Adelaide, Adelaide
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery)
BRIEF DESCRIPTION: Conference of maritime archaeologists, theme--Research and management of maritime archaeological material
REFERENCE: AIMA Bulletins Vols 15.2, 16.1

PROJECT TITLE: River Murray regional shipwreck and maritime sites survey
DATE or DATE RANGE: 1992
LOCATION: River Murray, South Australia
ORGANIZATION & or LEADER: Heritage Branch (Sarah Kenderdine)
BRIEF DESCRIPTION: Research into and survey of shipwrecks and other maritime related sites in the South Australian section of the River Murray
REFERENCE: Kenderdine, 1993

PROJECT TITLE: Muddy Waters Conference
DATE or DATE RANGE: September 1992
LOCATION: Echuca, Victoria
ORGANIZATION & or LEADER: Heritage Branch (S. Kenderdine)
BRIEF DESCRIPTION: First conference on the submerged and terrestrial archaeology of historic shipping on the River Murray
REFERENCE: Jeffery & Kenderdine, 1992

PROJECT TITLE: Establishment of Kangaroo Island Maritime Heritage Trail
DATE or DATE RANGE: 1993
LOCATION: Kangaroo Island
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: A trail comprising over 50 shipwrecks interpreted with seven land based signs and a brochure
REFERENCE: Anon, 1993

PROJECT TITLE: Mannum Dock
DATE or DATE RANGE: 1993-97
LOCATION: Mannum, River Murray
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery) and volunteers
BRIEF DESCRIPTION: Excavation of sections of Randell's dry dock and area adjacent (south) where work sheds were once located
REFERENCE: Jeffery, 1995

PROJECT TITLE: Investigator Strait regional shipwreck survey
DATE or DATE RANGE: 1993-95
LOCATION: Investigator Strait, South Australia
ORGANIZATION & or LEADER: Heritage Branch (Cos Coroneos & Rob Mc Kinnon)
BRIEF DESCRIPTION: Research into and survey of shipwrecks
REFERENCE: Coroneos & McKinnon, 1997

PROJECT TITLE: Amnesty under the Commonwealth *Historic Shipwrecks Act 1976*
DATE or DATE RANGE: Eleven months from 1 May 1993
LOCATION: South Australia
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: Reporting of shipwrecks and artefacts from the community as a result of blanket protection of shipwrecks older than 75 years.
REFERENCE:

PROJECT TITLE: *Solway* historic shipwreck
DATE or DATE RANGE: 1994
LOCATION: Victor Harbor
ORGANIZATION & or LEADER: Heritage Branch (C. Coroneos)
BRIEF DESCRIPTION: Survey and partial excavation of British built shipwreck adjacent to historic whaling station
REFERENCE: Coroneos, 1994

PROJECT TITLE: Backstairs Passage regional shipwreck survey
DATE or DATE RANGE: 1994-95
LOCATION: Stretch of water between Fleurieu Peninsula and Kangaroo island
ORGANIZATION & or LEADER: Heritage Branch (Cosmos Coroneos)
BRIEF DESCRIPTION: Research into and survey of shipwrecks located in Investigator Strait.
REFERENCE: Coroneos, 1997

PROJECT TITLE: River Boat Trail
DATE or DATE RANGE: 1994
LOCATION: River Murray, South Australia
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery)
BRIEF DESCRIPTION: Comprising 11 land based signs and a booklet on the shipwrecks, ships, wharves, docks, morgues and other maritime related sites.
REFERENCE: Griffiths & Jeffery, 1994

PROJECT TITLE: Corrosion survey of SA shipwrecks
DATE or DATE RANGE: 1995-96
LOCATION: Investigator Strait, Port Adelaide and Wardang Island
ORGANIZATION & or LEADER: Heritage Branch and Ian MacLeod (WA Museum)
BRIEF DESCRIPTION: A study of the rates of corrosion of iron and composite shipwrecks
REFERENCE: MacLeod, 1998

PROJECT TITLE: Management plan for SS *Clan Ranald*
DATE or DATE RANGE: 1996
LOCATION: Investigator Strait
ORGANIZATION & or LEADER: Heritage Branch (Terry Arnott)
BRIEF DESCRIPTION: Compilation of the management strategy for the SS *Clan Ranald* shipwreck site (the ownership of the site has been vested with the State government).
REFERENCE:

PROJECT TITLE: Establishment of the Investigator Strait Maritime Heritage Trail
DATE or DATE RANGE: 1996
LOCATION: Waters between Yorke Peninsula and Kangaroo Island
ORGANIZATION & or LEADER: Heritage Branch (Terry Arnott)
BRIEF DESCRIPTION: A trail comprising 26 shipwrecks interpreted with land based signs and a waterproof booklet
REFERENCE: Arnott, 1996

PROJECT TITLE: West Coast regional shipwreck survey
DATE or DATE RANGE: 1996-98
LOCATION: From Port Lincoln west to the Western Australian border
ORGANIZATION & or LEADER: Heritage Branch (Terry Arnott)
BRIEF DESCRIPTION: Research into and survey of shipwrecks off the west coast of South Australia
REFERENCE: Arnott, 2000 (Unpublished)

PROJECT TITLE: *Fides* exhibition
DATE or DATE RANGE: 1997-1999
LOCATION: Kangaroo Island, Australia and Finland
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery) and Terry Drew
BRIEF DESCRIPTION: Establishment of an exhibition on the *Fides* historic shipwreck and touring it around Australia and to Finland
REFERENCE: Anon, 1998

PROJECT TITLE: Trial Bay whaling station survey and excavation
DATE or DATE RANGE: 1998
LOCATION: Near Streaky Bay on the west coast
ORGANIZATION & or LEADER: Heritage Branch (Terry Arnott)
BRIEF DESCRIPTION: Archaeological survey and excavation of recently found whaling station
REFERENCE:

PROJECT TITLE: Side scan survey of River Murray paddle steamer wrecks
DATE or DATE RANGE: March 2000
LOCATION: River Murray
ORGANIZATION & or LEADER: Heritage Branch and Jeremy Green (WA Maritime Museum)
BRIEF DESCRIPTION: Side scan survey of the paddle steamer wrecks adjacent to the wharf at Murray Bridge and the PS *Queen* near Mypolonga
REFERENCE: Green, 2002

PROJECT TITLE: Establishment of the Port Elliot Maritime Heritage Trail
DATE or DATE RANGE: 2000
LOCATION: Port Elliot
ORGANIZATION & or LEADER: Heritage Branch (Robyn Hartell)
BRIEF DESCRIPTION: A trail comprising seven shipwrecks interpreted with five signs and a brochure
REFERENCE: Anon, 2000

PROJECT TITLE: *Casuarina* anchor
DATE or DATE RANGE: 2000
LOCATION: Investigator Strait
ORGANIZATION & or LEADER: Heritage Branch (Bill Jeffery)
BRIEF DESCRIPTION: Search for the anchor from the French survey cutter *Casuarina* (1803)
REFERENCE:

PROJECT TITLE: 20th AIMA Conference
DATE or DATE RANGE: November, December 2000
LOCATION: North Adelaide
ORGANIZATION & or LEADER: Heritage Branch and Flinders University
BRIEF DESCRIPTION: Joint conference of maritime archaeologists, and historical archaeologists (ASHA), Theme--Archaeology, Heritage and Tourism.
REFERENCE: AIMA Bulletin Vol 24

PROJECT TITLE: Establishment of Southern Ocean Shipwreck Trail
DATE or DATE RANGE: December, 2000
LOCATION: From the SA/Victoria border to the Murray Mouth
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: A trail comprising about 90 shipwrecks interpreted with 12 signs and a booklet
REFERENCE: Moran, 2000; Jeffery 2001

PROJECT TITLE: 'Holdfast Bay- The Underwater Story' Exhibition
DATE or DATE RANGE: 2000
LOCATION: Discovery Centre, Glenelg (Former Town Hall)
ORGANIZATION & or LEADER: SUHR (Terry Drew)
BRIEF DESCRIPTION: Exhibition of the 5000 artefacts recovered off Glenelg. Funded as a Federation Community Arts Project and financially supported by SUHR and the Holdfast Bay Council
REFERENCE: Rodrigues 2002; Rodrigues 2002a

PROJECT TITLE: Wardang Island Field School
DATE or DATE RANGE: February 2001
LOCATION: Port Victoria
ORGANIZATION & or LEADER: Heritage Branch and Flinders University
BRIEF DESCRIPTION: Documentation of shipwrecks and assistance in the training of University undergraduates in aspects of maritime archaeology.
REFERENCE:

PROJECT TITLE: Establishment of the Ships' Graveyard Maritime Heritage Trail
DATE or DATE RANGE: 2001
LOCATION: North Arm, Port Adelaide River
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: A trail comprising 25 shipwrecks interpreted with five signs and a booklet
REFERENCE: Hartell and Richards, 2001

PROJECT TITLE: Wardang Island Field School
DATE or DATE RANGE: February 2002
LOCATION: Port Victoria
ORGANIZATION & or LEADER: Heritage Branch and Flinders University
BRIEF DESCRIPTION: Documentation of shipwrecks and assistance in the training of University undergraduates in aspects of maritime archaeology.
REFERENCE:

PROJECT TITLE: Launch of National Moorings Program on SA Shipwrecks
DATE or DATE RANGE: November, 2002
LOCATION: Port Willunga
ORGANIZATION & or LEADER: Heritage Branch and Environment Australia
BRIEF DESCRIPTION: Establishment of nine permanent moorings adjacent to nine shipwrecks in Spencer Gulf (Wardang Island), Kangaroo Island and Gulf St. Vincent
REFERENCE:

PROJECT TITLE: Establishment of Jervois Basin Ships' Graveyard Maritime Heritage Trail
DATE or DATE RANGE: 2002
LOCATION: Jervois Basin, Port Adelaide
ORGANIZATION & or LEADER: Heritage Branch (Robyn Hartell)
BRIEF DESCRIPTION: Interpretation of five shipwrecks located in the Jervois Basin, and the areas history, through five signs
REFERENCE: Hartell, 2002

PROJECT TITLE: HMAS *Hobart*
DATE or DATE RANGE: 19 December 2002
LOCATION: Yankalilla Bay, Gulf St. Vincent
ORGANIZATION & or LEADER: Heritage Branch
BRIEF DESCRIPTION: Declaration of recently scuttled warship under *Historic Shipwrecks Act 1981* and delegation of site management to Minister for Tourism
REFERENCE: Richards, 2003



The *Santiago* located in the North Arm of the Port Adelaide River

PROJECT OUTLINES

The *Water Witch* historic shipwreck

The *Water Witch* was one of 69 vessels wrecked in the muddy waters of the River Murray in South Australia. A survey and partial excavation of this shipwreck was implemented in 1984 although searches for the vessel had begun as far back as 1970.

The vessel was built as a 25 ton single masted wooden cutter in Hobart Town, Van Diemens Land (Tasmania) by John Gray in 1835. After a short general career in Tasmania, it was bought by the South Australian government and was predominantly used by Pullen, Commander of the Colonial Marine and Marine Surveyor, in charting Lake Alexandrina and the lower channels of the River Murray.

The *Water Witch* also assisted E. J. Eyre on his journeys of exploration to Western Australia. On 8 May 1841 the *Water Witch* sailed through the Murray Mouth and then onto Moorundie (near Blanchetown) where Eyre was operating as Protector of Aborigines and Resident Magistrate. Eyre reported the vessel sinking at Moorundie on 5 December 1842.

The vessel was significant in the early colonial history of South Australia and it stood out as a priority for inspection in the Historic Shipwrecks Program. A search was carried out for the wreck site using a drawing made by E. C. Frome of Moorundie in March 1842 showing a single masted vessel moored against the river bank (Drew, 1985). This was thought to be the *Water Witch*, and using the drawing to locate the moored position of the vessel a dive was carried out on the designated site and a small pile of rocks and timbers were found. Was it the remains of the *Water Witch*? Over the next few years appropriate archaeological information was gathered to conclude the site was the *Water Witch*.

Some evidence was found which did not support the identification, namely the analysis of the timber structural components as being nearly all foreign or non-Tasmanian timber. Historical records provide some evidence as to how Tasmanian vessels were built and from what types of timbers (Lawson, 1949:16-18; O'May, 1959: 60,61). It was generally accepted that because of the availability of Tasmanian blue gum, Huon pine, etc. that most vessels were built from this type of timber. However, it is not known how available this timber was in the early shipbuilding times of Tasmania. The conclusive evidence that this site was the *Water Witch* points toward blue gum, etc. not being that available for ship building in Hobart at that time. Further research has been suggested for, not only Tasmanian vessels but other Australian-built vessels, wrecked in Australia to test these and other questions (Jeffery, 1989a and Jeffery, 1992a: 209-219).

The project on the *Water Witch* also proved that an acceptable standard of archaeological work could be carried out in the nil visibility waters of the River Murray (Jeffery, 1987). The majority of the structure still remains on the river bed covered with hundreds of sand bags and the rock ballast. The site has been declared an Historic Shipwreck under the *Historic Shipwrecks Act 1981* (South Australia) and is inspected regularly to monitor its condition (Jeffery, 1992b).

The *Santiago* historic shipwreck

The *Santiago* located in the North Arm of the Port Adelaide river has been of interest to maritime enthusiasts worldwide for many years. In 1978, the SUHR began a research and documentation project on the vessel. The vessel was dumped in the Port Adelaide river on 10 April 1945 in an area referred to as the ships' graveyard. Today the hull of this iron sailing vessel retains much of its integrity, from the keel up to the main deck and from stem to stern, unlike the other 24 vessels in the graveyard which have been cut up (Richards, 1999).

The *Santiago* is referred to as 'the oldest intact iron hull sailing vessel in the world' (Brouwer, 1999). The three masted ship, later a barque (455 tons, 161 feet in length) was built in Methil, Scotland in 1856, a time when iron shipbuilding was in its infancy. Heritage Branch also had an interest in the vessel, declaring it an historic shipwreck in 1981 under the South Australian *Historic Shipwrecks Act 1981*.

This interest in the vessel was followed up by Heritage Branch by obtaining documentary archival material, and recording the structure and shape of the hull in association with Bob Sexton. In recent times the longevity of the vessel, and how to slow the rate of corrosion has become a focus for work (MacLeod, 1998). A project to investigate the stabilisation of the *Santiago* was initiated in association with the University of South Australia in 1993 through a grant from the National Estate Grants Program. The aims of the project were to investigate the application of cathodic protection to reduce the rate of corrosion for those parts of the vessel situated underwater, and the performance of a coating system based on a rust converter for the above water parts (Kentish, 1995).

In 1994 ten anodes were attached to the hull and some small sections of the hull above water were painted with a corrosion inhibiting painting system. The painting system, 'Liquid Engineering's Exit Rust' (a tannin based rust converter) and in some areas a black pigmented water based epoxy on top of this, proved effective for the short test period (eight months). In regard to the success of the anodes attached to the section of the hull in water, there was mixed success. Kentish (1995) calculated that 17 zinc anodes, each measuring 1500mm x 50mm x 50mm were required to adequately protect the hull; for this exercise this was seen as excessive. Ten anodes were fixed to the hull to see what affect they would have on its corrosion. The *Santiago* is often visited by fishers and on two occasions, they interfered with the anodes, on one occasion removing one totally, and on the other breaking the cable attaching it to the hull. However, a level of protection was achieved and measured, indicating a decrease of 45% in the corrosion rate over a 12-month period. It was recommended that impressed current cathodic protection would be ideal in this case, but problems with vandalism and the requirement for an appropriate power source may be insurmountable.

However, the vessel will not survive as it is without some conservation assistance.

In a recent development, the *Santiago* broke its back about midway along its length. On the starboard side a crack of about 60cm in width at the main deck level has opened up. This occurred in early 2001.

In January 2003, Vicki Richards from the Western Australian Maritime Museum took some corrosion measurements of the *Santiago* as part of an ongoing investigation of the corrosion of the iron hull.

Community involvement in South Australian maritime heritage program

The purpose of this abstract is to provide a brief summary of the voluntary groups and personnel that have been instrumental in the establishment and development of the South Australian maritime heritage program. Unfortunately some names and groups may be unintentionally overlooked; this is only due to the author's memory.

In 1974 the Society for Underwater Historical Research (SUHR) liaised with Bob Ellis of the Aboriginal and Historic Relics Unit (SA Museum) about the need to look after shipwrecks and other maritime archaeological material in South Australia (Brock, 1977). Instrumental in this were Brian Marfleet, from the SA Police Underwater Recovery Squad, Terry Drew, Peter Christopher and Doug Seton (then Information Officer at the SA Museum). As part of SUHR they implemented projects on the *Loch Vennachar* shipwreck, Morgan wharf, Holdfast Bay and the ships' graveyard at Port Adelaide (Anon, 1979; Marfleet, 1980; Drew, 1983). These projects led to the use of the *Aboriginal and Historic Relics Preservation Act 1965* to protect them, which ultimately stimulated the proclamation of the Historic Shipwrecks legislation (State and Federal) in South Australia. Terry Drew provided valuable support in developing the program through the reporting of a number of shipwreck sites located in the south east of the state, and on later projects, such as the *Water Witch* and *Fides*. SUHR assisted the newly formed section within the Department of Environment and Heritage in the work on the *Water Witch* and *Zanoni* in addition to the SA Police Underwater Recovery Squad, who have further assisted with the search for William Randell's vessel, *Mary Ann* at Mannum.

Bob Sexton has, and continues to play a large role in the program. He was instrumental in developing the first 'database' of South Australian shipwrecks (Sexton, 1975) and has played a role in many joint projects with Heritage Branch and SUHR. His own projects and publications--some in association with his wife Rae--have been valuable in stimulating an interest in South Australia's maritime heritage. Ron Parsons (1986) (another prolific author on maritime history matters) and Tony Arbon (volunteer with the State Library) have provided much needed assistance. Stuart Moody from Maitland on Yorke Peninsula has helped with his knowledge of this area and the assistance with other projects, such as the inspection of the shipwrecks in the "shark-infested waters" of the Sir Joseph Banks Group.

In the south east of the State, a group led by Mick Galpin, Kym Redman, Brian Foster and Iain Stewart made it possible to conduct valuable work on the *Geltwood*, of which some results can be seen in the exhibition at Millicent and the memorial at South End. At the other end of the State, on the West Coast, Gill Roberston in conjunction with the Axel Stenross Maritime Museum in Port Lincoln initiated and have maintained work on the world's only hydraulically propelled steam lifeboat, the *City of Adelaide*.

Reports of shipwrecks have come from a number of divers (and fishers), all of whom need to be thanked, and particularly Ian O'Donnell, John McGovern, Rex Tyrell (*Zanoni*), John Deeprise (*Geltwood*), Kym Bray (Wardang Island). Dave Burchell and Paul Lunn, two of Adelaide's elder statesmen divers encouraged other divers to get involved with documenting shipwrecks. The Underwater Explorer's Club (Adelaide's most established dive club) assisted with a project on the *Sorata* in 1994 (Coroneos, 1997:80-83) and they have supported Kelvin Taylor, Anne Marie Slattery and the *Zanoni* dive club on their work on the *Zanoni*.

Many, many people have assisted the various investigators and authors of the regional surveys and reports, without them, completion of the work would not have been possible. Some have

already been named, others include John Tolley, Ray and Pauline Riddell and Steve Moritz and many others associated with the River Murray, and Don Skinner and Gifford Chapman during the West Coast regional survey. Chapman (1999) and Peter Telfer were also involved in some of the first wreck dives around Kangaroo Island and they passed this information onto Heritage Branch. The Flinders University Archaeology Society, and in particular Nathan Richards made the Coast Care project on the Ships' Graveyard at Port Adelaide possible (Richards, 2002).

Many regional councils and the volunteers associated with them, in particular the volunteers of the regional branches of the National Trust of South Australia have for many years cared for artefacts and other memorabilia associated with South Australia's maritime heritage (Kenderdine, 1991).



A volunteer mapping the remains of the *Solway*

Legislation for shipwrecks and other maritime archaeological sites in South Australia

The Federal legislation that applies to shipwrecks in South Australia is the same that applies in Australia's five other States, the Northern Territory and Australia's seven external territories. South Australian (State) shipwrecks legislation (*Historic Shipwrecks Act 1981*) is also required for "waters within the limits of the State" as is the case in the other states, although the majority of sites are Federal sites (Ellis, 1977). This state legislation mirrors the Federal *Historic Shipwrecks Act 1976* therefore this abstract will chiefly summarise the operation of this Act. Items of cultural significance in South Australia, other than shipwrecks are protected through the *Heritage Act 1993* and the *Aboriginal Heritage Act 1988*. For a detailed discussion of the historic shipwrecks legislation see Jeffery (1999).

The first law specifically designed to protect shipwrecks in Australia was proclaimed in Western Australia in 1964. This act titled the *Museum Act Amendment Act 1964* was proclaimed on 18th December 1964 to protect the four Dutch shipwrecks located off the Western Australian coast. This legislation came about because these shipwrecks were being placed under great pressure from treasure hunters, and there was community and political will to protect them. This legislation was amended in 1969, and again in 1973, at which time Federal legislation was proclaimed (*Seas and Submerged Lands Act 1973*) that disputed what many States had regarded, 'that waters from the low water mark out to three nautical miles was State waters'. Subsequent court cases by the States against the Australian government failed, which meant the 1973 Western Australian legislation (*Maritime Archaeology Act 1973*) was invalid and did not apply to the Dutch shipwrecks. This was further confirmed in a court case by treasure hunter Alan Robinson against the Western Australian government, which had the result of the Australian government proclaiming the *Historic Shipwrecks Act 1976* to protect the Dutch shipwrecks.

On the day the *Historic Shipwrecks Act 1976* received royal assent, ie. the 15th December 1976 it only applied to the Australian territories of the Northern Territory and the seven external territories. For it to apply to the six Australian states, each State needed to request its proclamation and this was done in Western Australia on 3rd September 1977, Queensland on 18th November 1977, New South Wales on 11th April 1979, South Australia on 8th October 1980, Victoria on 11th March 1982 and Tasmania on 23rd February 1982.

Negotiations between the Australian and State governments after the outcome of the Seas and Submerged Lands Case resulted in an offshore constitutional settlement in which jurisdiction and proprietary rights and title were 'returned' to the States in the coastal waters-within the territorial sea and internal waters-adjacent to the State for a distance of three nautical miles. This came about through the proclamation of the *Coastal Waters (State Powers) Act 1980* which gave extra-territorial powers to the States as provided by Section 51 (xxxviii) of the Australian Constitution. In relation to legislation affecting underwater cultural heritage sites, primarily shipwrecks, the Australian and State governments agreed to continue to apply the *Historic Shipwrecks Act 1976*, with amendments proclaimed in 1980 that would allow a State to request to cease its operation in that State if it so desired.

A good description of the original purpose of the legislation can be seen in the statement made by Senator Withers when he introduced the Bill in the Australian Senate in 1976:

A principal purpose of the Bill is to provide for the continuance on a sound legal basis of the existing high level of co-operation between Commonwealth agencies and such State institutions as the Western Australian

Museum. The Bill therefore contains provisions that will allow agreements to be entered into between the Commonwealth and the States relating to implementation and enforcement of the legislation. These include provisions enabling the Minister to delegate his powers for these and other purposes. Such agreements would enable States to continue and expand their efforts to preserve Australia's maritime heritage under secure national legislation. At the same time, the Commonwealth will be able to act in the national interest, when this becomes necessary.

This statement is indicative of how the legislation has been administered over the last 25 years with the States playing a major role. The Commonwealth Minister responsible for the legislation (currently the Minister for the Environment) has delegated certain powers to State Delegates, who are generally bureaucrats in charge of the agency authorised to implement the Act in that State (Jeffery, 1992c).

In its current form, the *Historic Shipwrecks Act 1976* protects the 'remains of ships' that are or have been situated in Australian territorial waters and internal waters but not 'waters within the limits of the State'. This includes shipwrecks that were once located on the seabed, but have been removed and are now located on land. The definition of a ship is a 'vessel that is used in navigation by water'. The Act also protects relics that were associated with ships. The usual protection practice is to protect a shipwreck and all the relics associated with that shipwreck. Therefore any protected shipwreck and the associated relics, if they have been removed from Australian waters and are now on land, and located in a museum for example, are protected.

The major provisions of the *Historic Shipwrecks Act 1976* are:

- the blanket protection of all shipwrecks older than 75 years (there is current debate on whether this applies to ships built, as well as wrecked at least 75 years ago) through an amendment to the Act made in 1985 (the date of the last amendments made to the Act);
- an obligation on the reporting of any discovered shipwrecks;
- protection of shipwrecks and associated relics younger than 75 years;
- protection of shipwrecks significant to Papua New Guinea;
- declaration of up to a 200 hectare protected zone surrounding an historic shipwreck (as of 1999, eleven zones had been declared);
- payment of a reward and award for the notification of a shipwreck later declared as 'historic' (up to 1990, 46 people had received rewards, totalling \$55,100 and a number of awards had been made);
- the establishment of a Register of historic shipwrecks and historic relics (A National shipwreck database has been established and is available on the web at <http://eqd.ea.gov.au/nsd/public/welcome.cfm>);
- powers to keep a track of historic relics held by individuals;
- powers to issue permits for certain actions (that would otherwise be illegal under the Act);
- appointment of Inspectors other than State and Federal Police;
- penalties for breaching certain provisions (the maximum fine is currently \$50 000 or five years imprisonment, or both for a corporate body for interfering with an historic shipwreck). A small number of prosecutions have been made in some states.

Guidelines have been compiled and published that assist in the implementation of the Act, and they include a clear set of criteria for ascertaining the significance of a shipwreck site, in

addition to site and artefact management, and establishing a shipwreck program (Jeffery, 1994). In addition, the Commonwealth government responded to a call for a National Historic Shipwrecks Research Plan (Jeffery, 1990a, 1993, 1994) and although its recommendations do provide the program with some useful directions, it is not widely used (Edmonds, et.al., 1995).

The Act and the associated program need a thorough review. The last review took place in 1990 (Kendall, 1990) and the last amendments to the Act were done in 1985, the timing of the blanket protection provision. When this provision was proclaimed to apply in the states in 1993, the number of protected shipwrecks went from 156 to about 5000. The Act was designed to protect a small number of sites, predominantly the four Dutch shipwrecks. This is highlighted by the provisions in the Act to keep a track of relics (artefacts) and for the agencies to issue permits so the artefacts can be sold or custody transferred. It is an achievable task to do this for four shipwrecks, maybe even 100; however, it is a nightmare to implement this work for 5000 shipwrecks (and an ever-increasing number).

Two other examples which highlight the outdated nature of the Act can be seen in the way the Commonwealth are about to implement the protection of other cultural heritage sites, through amendments to the *Australian Heritage Commission Act 1975* and the *Environment Protection and Biodiversity Conservation Act 1999*. It is proposed that the new legislation, currently the Environment and Heritage Legislation Amendment Bill (No.2) 2000 will provide for two lists, the National and Commonwealth Heritage Lists. The National list will only register and protect a small number of nationally significant sites—perhaps only a few hundred, and the Commonwealth list will register and protect sites under Commonwealth control, again most likely only encompassing a few hundred. This would appear to be a major anomaly with the way shipwrecks are currently handled, ie. through the protection of the 5000+ ‘nationally significant’ historic shipwrecks located on Commonwealth controlled land.

The other issue is to do with the collection of fees to assist in managing sites. The *Yongala* historic shipwreck earns local charter operators over \$1 million annually (not to mention associated businesses) through the numerous national and international tourists wanting to visit this great diving site (Moran, 2001). The site is under continual pressure from these divers and the large boat’s anchors and chains that have on occasions dragged over the site. While moorings are being established to counter this, the Museum of Tropical Queensland (the managers of the site) cannot charge the operators any fees to maintain the moorings, as the legislation is silent on this matter. While the *Yongala* as a dive site is exceptional, there are an increasing number of shipwreck sites around Australia that are being used by charter operators to earn a living. This raises another point that the Act is silent on, that of ownership. It would be an interesting issue if one of these sites, maybe even the *Yongala* was purchased by someone and they restricted the use of it, or sought financial compensation from the charter operators, and the shipwreck’s managers.

Other issues that are of some concern are the implications of the amendments to the *Navigation Act 1912* which could see the Australian Maritime Safety Authority remove and/or sell shipwreck material without notifying those responsible for the *Historic Shipwrecks Act 1976*.

There are also implications in the UNESCO Convention on the Protection of the Underwater Cultural Heritage, particularly any discrepancies between this Convention and the *Historic Shipwrecks Act 1976* (Jeffery, 2002). During a meeting on the 7th July 2001 those members

considering the Convention (including Australia) decided to agree on the final wording of the Convention. It was then submitted for adoption at the next session of the General Conference of UNESCO in Paris on 15 October 2001, where it was approved. The Australian government takes very seriously its involvement in the international treaty (convention) process and this has a direct impact on its domestic legislation and government practices.

It is a requirement that any treaty entering into force for Australia be able to be implemented in Australia. Thus, legislation (Federal/State/Territory) will need to be in place when the treaty enters into force for Australia, as will any changes to the practices of Departments/agencies necessary to conform to the treaty. AG's [Attorney General] can advise on whether existing Federal, State or Territory law conforms with the provisions of the treaty or whether new or amending legislation is needed.

From <http://www.austlii.edu.au/cgi-bin/disp.pl/au/other/dfat/reports/infokit.html> (accessed 27 July 2001)

These issues highlight the outdated nature of the *Historic Shipwrecks Act 1976* and its imminent review (Jeffery & Moran, 2001). Not long after the UNESCO Convention was agreed upon, Senator Hill (Minister for the Environment) in a letter to AIMA advised that the *Historic Shipwrecks Act 1976* will be reviewed as part of the development of a National Maritime Heritage Strategy. The strategy started to be developed in late 2001, but it stalled, and as at May 2003 had been put back on track by the Commonwealth government for development and to be finalised by September 2003.



The *City of Adelaide* lifeboat at the Axel Stenross Museum, Port Lincoln

William Randell, paddle steamers and the Mannum Dock

To South Australian's, the River Murray is a lifeline, supplying much of the water for the residents of Adelaide, Whyalla and several other towns throughout the State. It is not surprising that they take a keen interest in its history. The regional survey carried out by Kenderdine (1993) is the only one of seven regional surveys where the resulting publication has been reprinted due to public demand. A number of sites have been the subject of more intensive work such as the paddle steamers located adjacent to the Murray Bridge wharf, where a side scan survey revealed how intact they are.

Paddle steamers were in commercial use from 1853 to 1939 (peaking in the 1860s to 1880s), at which time the locks were completed and many men left the region to go to war. Over 350 vessels were involved in the trade throughout this period. The 61 'shipwrecks', 16 historic boats and 89 associated land sites located in the South Australian section of the River Murray and identified Kenderdine (1993) are a significant reminder of this important activity.

Archaeological and heritage management work has extended to a number of sites associated with William Randell. He put the first paddle steamer (*Mary Ann*) on the river in 1853 as he saw a commercial opportunity in transporting goods and materials to the Victorian gold fields. Just downstream from the launching site of the *Mary Ann*, Randell established a base, which has developed into the town of Mannum.

To assist his shipbuilding operations Randell purchased a floating dry dock, originally owned by Landseer and located at Milang. This dock was transported to Mannum and is now known as Randell's Graving or Dry Dock. It remained in commercial use until 1927 when it was still servicing the paddle steamer *Marion*. From 1963 to 1990 the *Marion* sat in the dock and was used as a museum, however it is now been restored and makes trips along the river.

The dock was referred to as 'the largest floating dock ever built in the Southern Hemisphere', its length being 140 feet. It was built of red gum and contained framing and a single layer of 9" by 3" (outside) planking, much like the structure of a wooden vessel. It had no ceiling (inside) planking and possibly no keel. Twelve trestles were fitted to the bottom of the dock to support the vessel being repaired and a caisson shaped gate hinged at the bottom sealed the entrance to the dock. A traction engine driving a centrifugal pump was used to empty the dock of water and it could do this at a rate of 40 000 gallons per hour.

During the restoration of the *Marion* in the dry dock from 1990-1994, it was found that the dock still contained all its original timbers, trestles and the gate. A survey allowed a complete plan and section to be drawn. Archaeological excavations were also carried out on the northern "ballast tank" and the adjacent area to the south, to provide some information on the construction of the dock and its adaptation into a dry dock, and to assist in the dock's interpretation (Jeffery, 1995). The dock, the *Marion* and the surrounding area are now part of a major museum on the history of the river and its use as a transport corridor into the interior of Australia.

The *Zanoni* historic shipwreck

This site has been a focus for the maritime heritage program in South Australia since its discovery in 1983 (Jeffery, 1987b). Not only in terms of archaeological work, but in general heritage management, as it has been a focus for illegal fishing and as a result 12 people have been prosecuted.

The shipwreck site is indicative of a vessel being blown on its 'beam ends' and sinking to the seabed in relatively deep water and suffering little disturbance since its loss. The length of the site corresponds to the registered length of the vessel and it is laying over on its port side at about 45° off the vertical. About 10 metres of the bow is intact and a smaller section of the stern is standing at a similar angle, although less intact. The midship section consists of the starboard hull collapsed on to the port hull which is laying on the seabed. The fore and mainmast have similarly collapsed and can be seen laying on the seabed adjacent to their original positions. The mizzenmast cannot be seen.

The vessel's structure is covered with sponges, corals, ascidians and urchins which inhibits the easy recognition of structural components and fittings. Much of the rigging, fittings and equipment that fell from the vessel are now laying on the seabed to port of the main structure and covered with sediment (Jeffery, 1992).

The 338 ton composite barque *Zanoni* was built in Liverpool in 1865 and was 139 feet (44 metres) in length. It was built by W. H. Potter & Co and owned by Thomas Royden & Son and intended for the East India trade. Due to its composite construction (iron frames, wooden planking) Lloyd's described the construction as 'experimental' requiring a biennial survey. Lloyd's issued rules for composite construction in 1867 (Sexton, 1991).

The *Zanoni* sailed from Liverpool on its maiden voyage on 9 February 1866 bound for Lima, Peru with a general cargo. From Lima the vessel sailed to Port Louis, Mauritius loaded with a cargo of guano. On 13 December 1866 the *Zanoni* departed Port Louis bound for Port Adelaide with 4551 bags of sugar. At Port Adelaide the vessel was chartered to take wheat to London. The 4025 bags of wheat and 15 tons of bark were loaded at Port Wakefield 80 km north and the *Zanoni* sank on its voyage back to Port Adelaide on 11 February 1867.

The master and 14 crew survived to tell the story, the vessel was blown over in a 'freak storm' and sank to the bottom within minutes. Contemporary searches failed to locate the *Zanoni*, reportedly sunk in nine fathoms (18 metres) of water. Its discovery in 1983 was the first time the vessel had been seen since 1867.

The *Zanoni* has been found to be the most intact 19th century merchant sailing vessel located in South Australia. It was concluded that the wrecksite has not suffered from contemporary salvage and the ship's hull, the equipment used aboard, and the possessions of the master and crew would be ideal for study, making the site a rare and valuable archaeological resource (Jeffery, 1988).

Three seasons of survey and excavation work were implemented from 1986 to 1988. A detailed plan of the site and some excavation of the galley and crew's quarters (located on the seabed and just aft of the foremast) was carried out. This revealed numerous intact galley stores and the ship's stove, which was subsequently recovered, conserved and displayed at the

South Australian Maritime Museum. Other items have been placed on display at the Ardrossan Branch of the National Trust of South Australia. The intact nature and condition of the recovered artefacts highlight the 'ideal' environment for the site and are indicative of the 'gentle' way in which the ship sank (Jeffery & Sexton, 1996).

As part of the management of the site, a protected zone of 550 metres radius was declared to prohibit all activities unless a permit allowed them. In addition a barge was sunk 1 nautical mile south of the *Zanoni* in 1984 to act as an alternative place for fishing. In addition sacrificial anodes have been connected to the iron frames of the hull to see if they could slow their corrosion and extend the longevity of the site (Steinberg, 1997).



The bow of the *Zanoni* lying on its port side in 18 metres of water
Photo: T. Drew

South Australian Shipwreck Database

The maritime heritage program in South Australia was instigated in part to obtain information about all of its shipwrecks. This work began in earnest within the Heritage Branch with the employment of two historians/archaeologists Margaret Saunders and Dena Garrett in 1986 and 1990 respectively. Sexton (1975) had prepared an inventory of shipwrecks up to 1899 and this together with as many primary and secondary resources, were consulted by the two consultants to produce an initial inventory that was then put onto a computer database. This information was used as a basis for research into the regional shipwreck surveys and the subsequent additional wrecksite detail obtain was added to the database.

The South Australian Shipwrecks Database in 2003 contains 807 shipwrecks, each record (shipwreck) containing 70 fields of information. In addition many of the artefacts associated with some of the shipwrecks are also to be found on this database. A maritime heritage database combining the shipwrecks and the maritime heritage sites from the State Heritage Register Database has recently been created to assist in the development of the program.

A website, spatial view of South Australia's shipwrecks incorporating some of the attributes of the 807 shipwrecks has also developed and can be seen in the intertidal/marine section of the South Australian atlas at www.atlas.sa.gov.au .



South Australia's regional shipwreck surveys

In 1986, the South Australian maritime heritage program initiated a plan to document all maritime heritage sites (predominantly shipwrecks) in South Australia, including those located in Australian territorial waters. Shipwrecks and other underwater sites were seen as a major focus as the funding for the plan came from the National Shipwrecks Program and many terrestrial maritime sites were being identified through the regional surveys initiated by another section of the Heritage Branch.

The aims of the regional surveys were to identify and document all the shipwrecks in the region and to inspect and assess as many of the sites as was practical. Through these aims it was anticipated a good understanding of all shipwrecks would be gained, and particular sites could be targeted according to their determined significance, threats, conservation issues, and dive tourism potential. This work therefore provided a valuable source of information for the database of shipwrecks. With the limited resources available in this program, it was deemed important that they be put to work on these sites, for these reasons.

Employment of a project officer on Commonwealth Historic Shipwrecks Program funding enabled the surveys to commence in 1986 and continue until 2001. Out of the eight regions identified, six have been fully or partially completed being:

- South East Coast (Clark, 1990; Jeffery, B., & Kenderdine, S., 1991);
- River Murray (Kenderdine, 1993);
- Kangaroo Island (McKinnon, 1993);
- Investigator Strait (Coroneos and McKinnon, 1997);
- Backstairs Passage (Coroneos, 1997);
- West Coast (Arnott, 2000).

The two remaining areas, Spencer Gulf and Gulf St. Vincent are state waters and state funding has not been forthcoming, nor have the Commonwealth wanted to fund them. In addition to a successful completion of the above aims, the surveys have had the affect of getting a number of people and groups directly involved in the work. This is deemed very important in the ongoing management of the sites. Rather than sit back and wait for divers and fishers to come forward and report sites (as per the notification provision of the Act), the project officer works closely with a number of people over a considerable time, gaining trust and understanding on the aims of the work. The program has been rewarded by having unofficial guardians of sites who have notified the Heritage Branch of any wrongdoing as well as information about new sites.

Because of this approach, it has been possible to gain information on 807 shipwrecks. In 1981 when the legislation was proclaimed in South Australia, it was estimated that there were only 350 shipwrecks in the state.

South Australian shipwreck/maritime heritage trails

Shipwreck "trails" help to raise public awareness on the significance of historic ships, shipwrecks and related maritime heritage sites. They can also assist heritage managers in caring for sites, as they can provide first-hand examples on the way sites can and should be cared for (Jeffery, 1990).

Numerous types of trails are being developed today to cater for tourists who are keen to experience the cultural and natural heritage values located in a region, instead of viewing some of these aspects in an artificial environment, such as in a museum. The future for the South Australian shipwreck trails and similar trails in the other States would be in their "linkage" through a coordinated national trail. At a State level this has been done through the Office of Recreation and Sport and their trails' website <http://www.southaustraliantrails.com/>

In South Australia, nine maritime heritage/shipwreck trails have been developed since 1989. The Heritage Branch in association with the numerous community individuals, groups, State government agencies and local councils has developed all of the trails scattered throughout the State. For further information on the trails developed so far look at the maritime heritage/shipwreck trails page of the heritage website. The brochures, booklets, and some further reading on the trails include:

Adelaide's Underwater Heritage Trail: (Anon, 1989)

Wardang Island Maritime Heritage Trail: (Anon, 1991; Jeffery, 1993a)

Investigator Strait Maritime Heritage Trail: (Arnott, 1996)

Kangaroo Island Maritime Heritage Trail: (Anon, 1993)

The River Boat Trail: (Jeffery and Griffiths, 1994)

Port Elliot Maritime Heritage Trail: (Perkins, 1988; Anon, 2000)

Southern Ocean Shipwreck Trail: (Moran, 2000)

Garden Island Ships' Graveyard Maritime Heritage Trail: (Richards, 1998; Hartell & Richards, 2001; Richards, 2002)

Jervois Basin Ships' Graveyard Maritime Heritage Trail: (Hartell, 2002)

The *Fides* project

Another project that has helped to raise public awareness has been the *Fides* project. During 1998 and 1999, an exhibition on the *Fides* historic shipwreck travelled throughout Australia and onto Kristinestad and Helsinki in Finland. The *Fides* was a Finnish built vessel (a 387 ton three masted wooden sailing barque) sailing under the Russian flag and built at the port of Kristinestad in 1857. It was wrecked in 1860 off Kangaroo Island in South Australia while trading a general British cargo to South Australia. It was partly salvaged at the time and today it is not seen as a 'great' source of archaeological treasures such as the *Batavia* or *Pandora* (although protected under the *Historic Shipwrecks Act 1976*). Nor is it an intact shipwreck: the high-energy seas surrounding Kangaroo Island, South Australia have seen to that.

What is significant about the *Fides* is that it still has a close family and historic connection to a community in Finland today. This community, now living throughout Sweden and Finland were keen to have some of the material remains in their museum. It was also thought that an exhibition of a small part of its original cargo, and parts of the ship may evoke interest in, and stimulate an appreciation of the other 'mundane', non British, yet important aspects of Australia's maritime heritage, in Australia.

In 1989 Mr Erik Sandlund, great grandson of Carl Hyden the major owner of the *Fides* and representing the Kristinestad Maritime Museum in Finland, unveiled a plaque at Cape Borda, Kangaroo Island commemorating the loss of the vessel and 10 of the crew. It was through the interest and involvement of Mr Sandlund and the Kristinestad Maritime Museum that discussions commenced about exhibiting some of the *Fides* artefacts in Finland.

The exhibition consisted of twelve interpretive panels (in English and Finnish) on the history of the *Fides*, including the historical era from which it came and the shipwreck site (Anon, 1998). It included parts of the ship's stores and equipment, such as part of the bell, and some material that was cargo, such as intact fruit and olive oil bottles. Captain Jurni Harju (Curator of the Kristinestad Maritime Museum) especially constructed a model of the vessel to tour with the exhibition. A ten minute documentary (with Finnish sub titles) on the '*Fides* story' was also compiled and accompanied the exhibition (compiled by Rob Morrison of Channel 10 Adelaide).

The exhibition toured five Australian States from August 1998 to June 1999. Visions of Australia granted the Heritage Branch most of the finances to develop the exhibition and to tour it around Australia. In July 1999, the exhibition accompanied by Terry Drew, John Perkins (exhibition designer) and Bill Jeffery, was established in Kristinestad, Finland, which coincided with celebrations for the town's 350th anniversary. The Maritime Museum of Finland on Hylkysaari Island, Helsinki, assisted with the cost of transporting and establishing it to Finland in addition to Tourism SA and the Australian Embassy in Stockholm. The exhibition then went on to the Maritime Museums in Helsinki and in Mariehamn, Åland Islands.

Many interesting maritime related sites and objects were seen in Finland and Sweden. Perhaps the most evocative were the use of ship's models as votive (offering) pieces in various churches. They were given to the churches by a vessel's crewmember before and/or after a long voyage. The model especially built for the *Fides* exhibition was offered to the

Kristinestad church in 2000 as its votive ship for the town's sailors who still travel around the world.



The exhibition in the former school in Kristinestad, Finland.



A votive ship in a church on the island of Jourmo.

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