

GIRTS

Scientific Divers

DIVE INTO AN OCEAN FULL OF HISTORY



www.girtsd.org

Introduction

- Background
- GIRT as part of PhD research project
- GIRT administration and method
- Diver motivation survey
- Adopt-a-Wreck
- Survey reporting
- Linking other citizen science programs



SMS Emden (1916)
North Keeling Island, Indian Ocean



Background

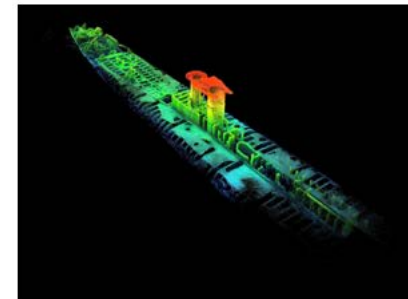
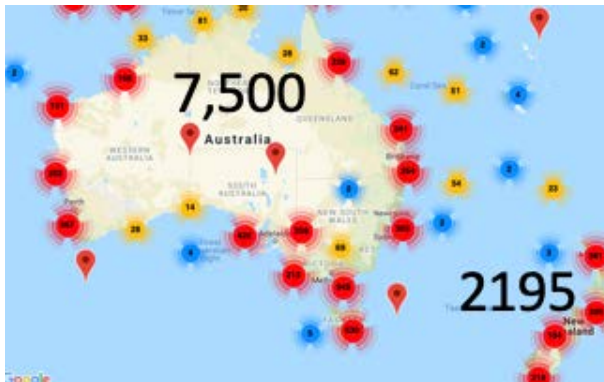


Underwater Cultural Heritage Act 2018

No. 85, 2018

An Act to protect Australia's underwater cultural heritage, and for related purposes

Management balances protection of shipwrecks with maintaining public access for recreational, scientific and educational purposes



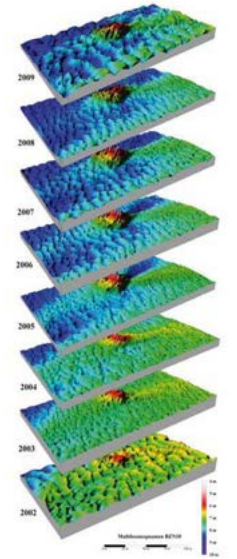
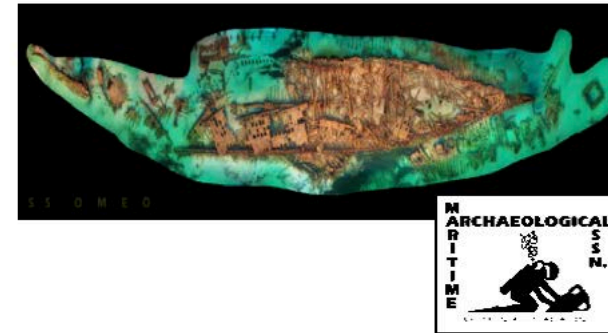
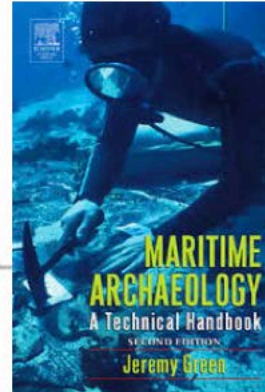
J class-Submarine
courtesy Heritage
Victoria

Thorough documentation is required to assess UCH site condition



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Background



Sequence of multibeam images from the BZN 10 wreck 2002-2009. RCE Netherlands

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Can public archaeology inform science based underwater cultural heritage management?

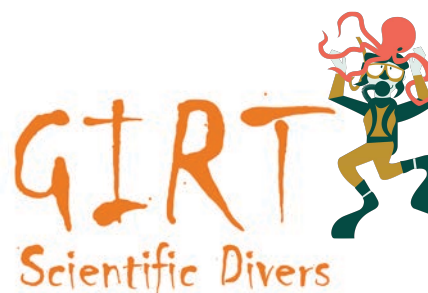
- understand the condition of shipwrecks and the factors driving their preservation or deterioration (site formation processes)
- understand who is interested to participate in this citizen science project and whether their motivation changes throughout the course of their participation (*questionnaire*)



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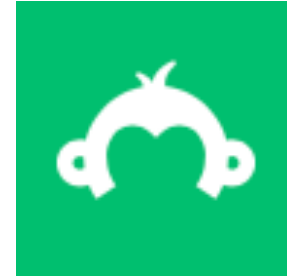
LESSON 2.1

Survey 5



Can public archaeology inform science based underwater cultural heritage management? - Motivation questionnaire

42





Nautical
Archaeology
Society

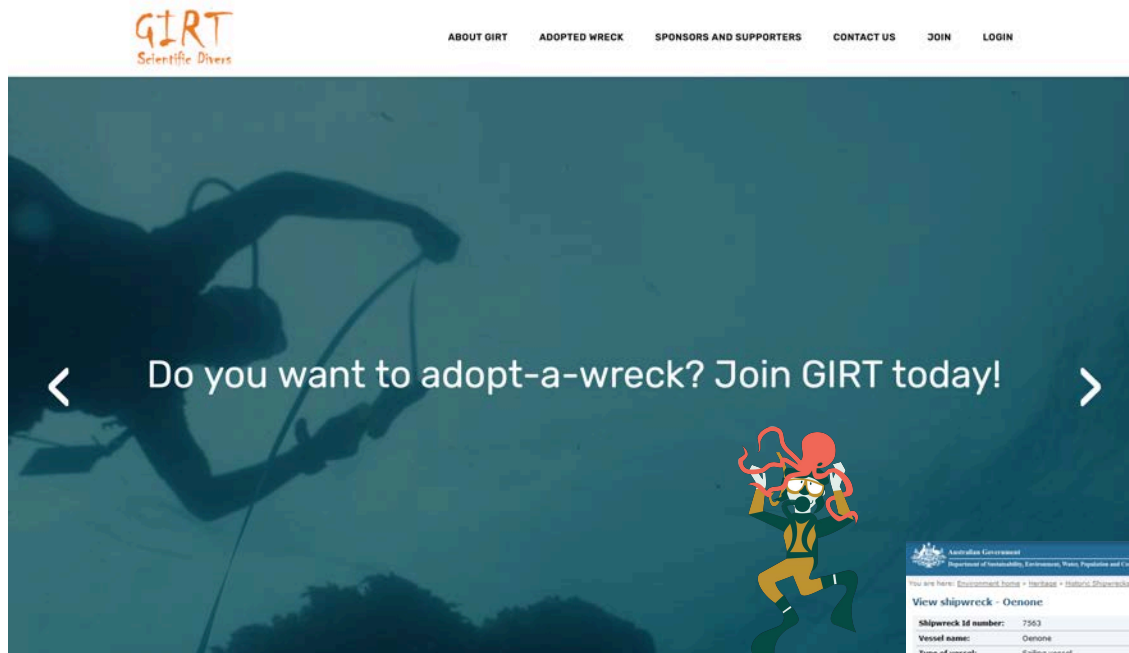
www.nauticalarchaeologysociety.org/content/adopt-wreck-scheme

Adopt-a-wreck

- Devised by Chris Underwood
- The scheme serves as a way of encouraging the public to actively record the sites they are visiting. In the UK, everyone who has adopted a site is encouraged to submit their work for the annual 'Adopt a Wreck Award'.

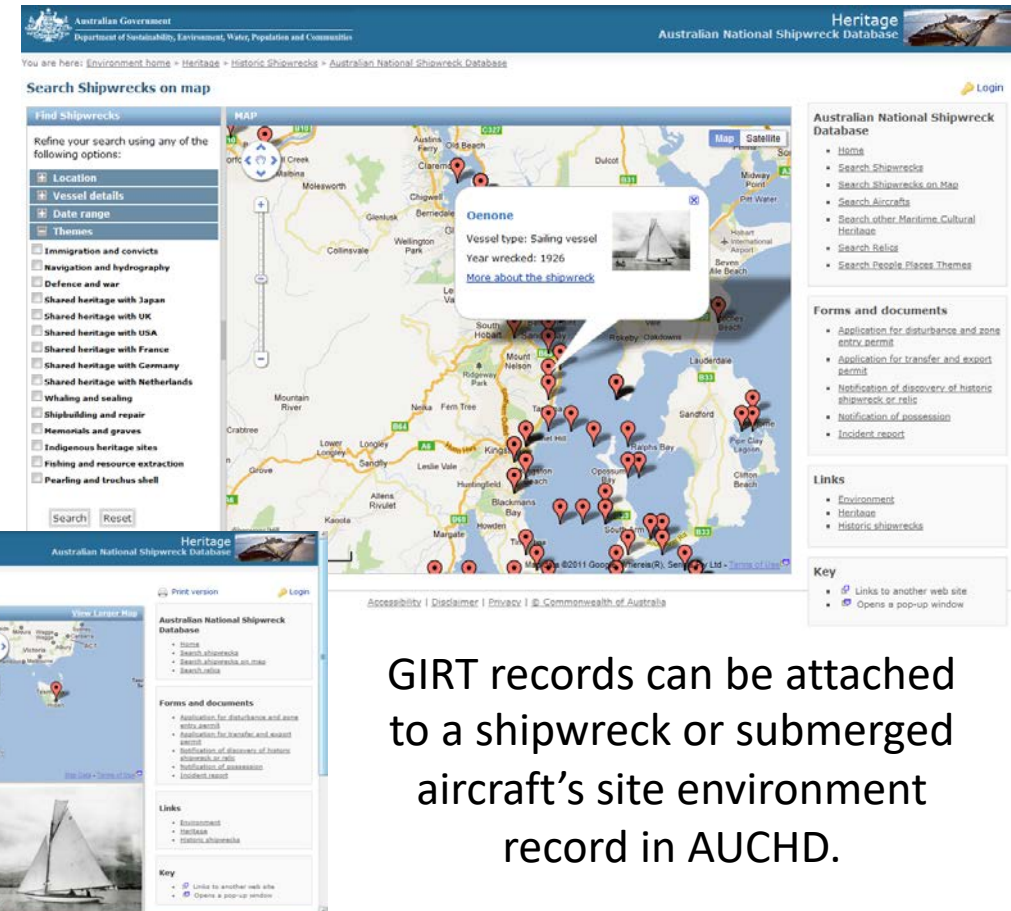


Survey Reporting - GIRT website and AUCHD



Survey records are entered
into the GIRT website
www.girtsd.org/reporting

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GIRT records can be attached
to a shipwreck or submerged
aircraft's site environment
record in AUCHD.

Linking other citizen sciences a holistic approach – sharing data



Rapid Monitoring

Observer name: _____ Phone: _____ Date: _____
 Email: _____ Organisation: _____ Time: _____
 Vessel: _____ Observer category: ☐ Reef visitor ☐ Marine tourism industry ☐ Fisher ☐ Traditional owner
 Number of visits to a reef: _____ Survey experience (approximate number of surveys completed): _____ Other (please specify): _____

Reef ID (e.g. 16-023): _____ Reef name: _____ Site: _____
 Centre of survey: Lat: _____ S Long: _____ E Marine Park Zone: _____
 Tick one GPS type: ☐ Decimal Degrees (preferred) ☐ Degrees Decimal Mins ☐ Degrees Min Sec Water temperature: _____ °C
 Survey type (tick one): ☐ Snorkel ☐ Dive ☐ Viewing bucket Survey depth: _____ metres

Habitat type (circle one) Flood plume (circle one) Suspended algal bloom (circle one) Tide at survey (circle one) Visibility (circle one)
 LAGOON FLAT CREST SLOPE YES NO YES NO LOW MID HIGH <5m 5-10m >10m

Timed swim (10 minutes)

ANIMALS	TALLY	TOTAL	ANIMALS	SIZE / SEX / TYPE	TALLY	TOTAL
Sea cucumber (all species)			Coral trout (all species)	<38cm		
Giant clam (larger than size of hand)			Maori wrasse	>38cm		
Anemonefish (all species)			Turtle (all species)	Male		
Butterflyfish (all species)				Female		
Grazing herbivores (see definition over page)				Green Turtle*		
Cods and groupers (over 10cm in length)				Hawksbill Turtle*		
				Other (please name)		
				Whitetail reef shark		
				Blacktip reef shark		
				Other (please name)		
				Crown-of-thorns starfish		
				< Size of hand		
				> Size of hand		

360° survey (One 5 metre radius circle)

BENTHOS Insert 16 for each Benthos type to total 100%
 Macroalgae _____
 Live coral _____
 Recently dead coral (whites) _____
 Live coral rock _____
 Coral rubble _____
 Sand _____
 Total 100 %

PHOTOS TAKEN (Please provide details e.g. image no./name, what it is, and a description)
 RECENTLY DEAD CORAL _____
 CORAL ROCK (includes dead coral) _____
 CORAL RUBBLE _____
 SAND _____

CORAL IMPACTS (Complete 1, 2 and 3 below. Circle Y or N)
 1 Is any coral white? Y/N _____
 Is living coral tissue present? Y/N _____ If yes: BLEACHING
 Is coral being eaten? Y/N _____ If yes: PREDATION
 If yes, by what? Crown-of-thorns starfish _____ How many seen? _____
 Juveniles (size of hand or smaller) _____
 Adults (larger than size of hand) _____
 Drupella snails (all sizes) _____
 Is coral banded in appearance? Y/N _____ If yes: DISEASE
 Is coral competing with something else? Y/N _____ If yes: COMPETITION
 2 Is any coral broken or damaged? Y/N _____
 If yes: What is the likely main cause? (Circle one)
 Storm _____ Animal _____ Vessel _____ Anchor _____ Divers _____ Snorkellers _____
 Unknown _____ Other: _____
 3 Is any rubbish present? Y/N _____
 If yes: Number of pieces in survey area: Fishing line _____ Plastic _____
 Netting _____ Rope _____
 Other (please specify) _____
 IMPACT DETAILS (How much bleaching, predation, disease, damage? Other impacts?) _____
 OTHER THINGS OF INTEREST (Habitat, spawning, behaviour, etc.) _____

To submit your survey, go to www.gbmpa.gov.au/eye-on-the-reef/ Reply Paid PO Box 1379 Townsville QLD 4810 | Fax: (07) 4772 6093 | eyeonthereef@gbmpa.gov.au

Eye on the Reef

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PS Phoenix (1855), Torres Strait

References

- **Training Manual** for the UNESCO Foundation Course on the Protection and Management of Underwater Cultural Heritage in Asia and the Pacific
- **Nautical Archaeology Society (NAS)** Adopt-a-Wreck
- **Australasian Underwater Cultural Heritage Database**



Andrew Viduka PhD Candidate

This project has been approved by the
Human Research Ethics Committee of the
University of New England

