

Citizen science for maritime cultural heritage in New Zealand

Kurt Bennett | Independent maritime archaeologist, New Zealand

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ABSTRACT

Maritime archaeology in New Zealand has been relatively underdeveloped over the past decades. Limited resourcing and funding at an agency management level, combined with no tertiary-level teaching of the discipline, has severely restricted any development. Citizen science programs introduced in recent years have begun to fill this gap with the teachings of systematic data collection and underwater survey techniques. This paper describes recent activity in this area and the work that has been achieved. It also briefly discusses the impact such programs have on empowering communities and the next generation of scientists. Whilst it is still early in its development, New Zealand is primed to continue building on these programs to promote and celebrate its maritime heritage.

Keywords

Citizen science | Heritage conservation | Maritime archaeology | Maritime cultural heritage | New Zealand |



GIRT Scientific Diver, Andy Viduka, conducting a photogrammetric survey of *Rainbow Warrior* | photo K. Bennett, 2024

INTRODUCTION

New Zealand offers rich and diverse maritime cultural heritage sites that reflect the country's long-standing connection to the sea. From early Māori voyaging and settlements to European exploration and maritime trade, these sites provide invaluable insights into New Zealand's history and cultural development. Over recent years, the field of maritime archaeology has gained momentum through citizen science initiatives, such as those led by Australasian Institute for Maritime Archaeology (AIMA)/Nautical Archaeology Society (NAS), Gathering Information via Recreational and Technical (GIRT) Scientific Divers, and the HMS Buffalo Re-examination Project (AIMA 2024; Bennett, Gainsford and Cox 2021; Viduka 2020a). These programs have empowered communities, particularly local divers and schoolchildren, to actively engage with, document, and preserve New Zealand's underwater heritage. By combining archaeological research with educational outreach and community involvement, these efforts not only raise awareness about maritime archaeology but also foster a deeper appreciation for broader natural, social and historical values, relating to maritime themed sites.

Growing interest in New Zealand's maritime heritage has encouraged communities to explore dynamic relationships between humans and the sea. Through the introduction and development of educational programs, such as the interactive learning experiences for local schools, and the ongoing surveys of shipwrecks like the HMS *Buffalo* and *Rainbow Warrior*, the public is increasingly aware of the potential of these sites to tell multiple stories. These initiatives, through AIMA/NAS, GIRT Scientific Divers and the HMS Buffalo Project contribute to the protection and management of New Zealand's cultural and environmental resources while enhancing local economies through eco-tourism and maritime heritage-related activities. The collaboration between citizens, divers, schools, and institutions highlights the importance of citizen science for maritime archaeology in New Zealand's cultural landscape and its potential to link the country to broader global maritime networks.

BACKGROUND

Between 1250 CE and 1300 CE, the first wave of Polynesian peoples arrived in the Island nation to be later named Aotearoa (land of the long white cloud) (Smith 2019). A second wave of migration then occurred from 1769 CE with the arrival of mostly European and Asian cultures. The cross-cultural pressures and increase in population led to the signing of the Te Tiriti o Waitangi—the founding document of the South Pacific island nation, New Zealand.

Several large islands make up the length of New Zealand and include Te Ika-a-Māui/North Island, Te Waipounamu/South Island and Rakiura/Stewart

Island. Over the centuries, these and other outlying smaller islands' hazardous coastlines and treacherous harbours resulted in wrecking events that now contain material evidence of past seafaring connections.

New Zealand's maritime cultural heritage represents a diverse range of site types. These include both Māori and Pākehā material culture, including waka (canoes), canoe landings, eel weirs and fish traps, inundated settlements, shipwrecks, military sites, wharves/jetties, navigation markers, ballast dumps, slipways and debris (Dodd 2003, 151; Carter and Dodd 2015; Johns, Irwin and Sung 2014). The official number of shipwrecks recorded is not clear, however, published numbers range between 1,500 and 2,500 with an estimated 10 % being relocated (Carter and Bennett 2021, 94; Ingram et ál. 2007; Hutching 2006).

It was not until the mid-1950s with the introduction of SCUBA that shipwrecks and other submerged sites were visited—some targeted for their valuable cargoes. Unfortunately, this looting continued over the following decades, with many sites losing their archaeological integrity. It is not until recently that attitudes have begun to change towards protecting the underwater cultural heritage resource.

Maritime archaeology as a discipline is relatively underdeveloped, relying on two small local avocational groups (Maritime Archaeological Association of New Zealand and the Underwater Heritage Group) to occasionally conduct projects and research (Carter and Bennett 2022, 94-95). The discipline is not taught at tertiary level and recent academic studies have relied on internationally trained maritime archaeologists (see Bennett 2021; Carter 2019; Bennett and Fowler 2017; Bennett and Fowler 2016; Joura 2025) to undertake local research. In recent years, however, there has been a shift to adopt internationally recognised citizen science training programmes and these have led to several shipwreck surveys and community archaeology projects.

These avocational projects supplement the ongoing academic studies, under-resourced agencies and create awareness around New Zealand's maritime heritage.

MARITIME HERITAGE CITIZEN SCIENCE

Over the past decade, maritime archaeology avocational projects and citizen science training courses have gained traction. These include AIMA/NAS, GIRT Scientific Divers and the HMS Buffalo Re-examination Project (Bennett and Parslow 2025). All three initiatives have contributed to raising awareness around New Zealand's maritime heritage while training up the public with basic skills to record, preserve and share information.



New Zealand located in the South Pacific | photo TUBS

AUSTRALASIAN INSTITUTE FOR MARITIME ARCHAEOLOGY (AIMA)/ NAUTICAL ARCHAEOLOGY SOCIETY (NAS)

The AIMA, in partnership with the NAS, offers a comprehensive four-part training program in maritime archaeology. This internationally recognised course is designed for both divers and non-divers and aims to introduce participants to the methods and procedures used in maritime archaeology, as well as to raise awareness about shipwreck preservation (AIMA 2024). The program includes a two-day introductory course (Part 1), followed by advanced modules that involve practical and theoretical components, culminating in a certificate upon completion of each part.

Over the past decade, AIMA/NAS training has been actively conducted in New Zealand, contributing to the development of maritime archaeological skills in the region. Notably, events have been organised during New Zealand Archaeology Week to promote maritime heritage. For instance, in April 2024, an AIMA/NAS Part I course was held in Auckland, introducing participants to maritime archaeological methods and shipwreck preservation in New Zealand. These initiatives have been supported by Heritage New Zealand Pouhere Taonga, reflecting a collaborative effort to enhance public engagement and education in maritime archaeology (Heritage New Zealand 2024).

GATHERING INFORMATION VIA RECREATIONAL AND TECHNICAL (GIRT) SCIENTIFIC DIVERS



Students undertaking Part 1 AIMA/NAS | photo K. Bennett, 2024

GIRT Scientific Divers is a conservation-focused, no-impact citizen science initiative that trains members to systematically document observable physical and natural features of underwater cultural heritage sites (Viduka 2020a, 2020b). The program aims to facilitate the ongoing protection and management of these sites by enhancing understanding of their condition and the factors influencing their preservation or deterioration. By engaging divers in this systematic documentation, GIRT promotes active public participation in maritime archaeology and fosters a deeper appreciation for submerged cultural resources (GIRT Scientific Divers n.d.).

In recent years, GIRT Scientific Divers have conducted training and survey work at notable sites in New Zealand. For example, in April 2024, GIRT members monitored the *Othello* shipwreck at Kiapipi Shipyard on Rakiura/Stewart Island, collaborating with new members from Dunedin to assess the site's condition (GIRT Scientific Divers 2024a). Additionally, divers have conducted two diver surveys of the *Rainbow Warrior* wreck at the Cavalli Islands. Both surveys successfully completed multiple dives to document and record data for comparative analysis (Viduka et ál. 2021; GIRT Scientific Divers 2024b).



Rainbow Warrior ship being intentionally sunk at its final resting place in 1987 in the Cavalli Islands, Northland, New Zealand | photo New Zealand Maritime Museum Hui Te Ananui a Tangaroa (Brian R. Latham)

These activities contribute valuable data to heritage managers for the conservation of New Zealand's underwater cultural heritage.

HMS BUFFALO RE-EXAMINATION PROJECT

The HMS Buffalo Re-examination Project, initiated by the Mercury Bay Museum in Whitianga, New Zealand, aimed to conduct a detailed site survey of the HMS *Buffalo* shipwreck to provide an accurate interpretation of the site. The project sought to increase awareness of maritime archaeology both locally and nationally through engagement with the museum, diving community, local schools, and various agencies. Findings from the project enhanced public understanding and appreciation of this significant underwater cultural heritage site (Bennett, Gainsford and Cox 2021a, 2021b, 2021c; Mercury Bay Museum n.d.).

A key component of the project involved training local divers as citizen scientists, equipping them with skills in underwater archaeological survey techniques. This initiative enabled community members to actively participate in the documentation and preservation of the shipwreck, fostering a sense of ownership and stewardship (Bennett, Gainsford and Cox 2021a). Additionally, the project developed innovative educational programs for schools, including interactive learning experiences that brought maritime archaeology from the sea

and into the classroom. These efforts successfully disseminated new information to the public, particularly non-divers and students, broadening the reach of the project's findings and a local heritage site (Heritage New Zealand 2021).

The school education programs were a key part of the project, designed to share knowledge of the shipwreck with non-divers, particularly children. Two school programmes were introduced in 2021, engaging local Mercury Bay schools. The first, led by the Mercury Bay Museum, brought 162 Year 5/6 students and their teachers to Buffalo Beach to learn about the HMS Buffalo's history, construction, and maritime significance. This was followed by a second program, which expanded participation to 182 students. This session introduced children to maritime archaeology and the methodologies used in underwater surveys. A practical component was also included, where students pretended to be maritime archaeologists, recording a simulated shipwreck site using skateboards (to imitate diving), diving masks and recording equipment (slates and tape measure). This activity, developed by the Project, was inspired by the education model and similar diving activities from the Punta Prima Project in Spain (Aragon et ál. 2022). At the time of writing, more than 500 children have participated in the learning modules since 2021.

The project's educational initiatives not only introduced children to maritime heritage but also connected with New Zealand's national school curriculum in social sciences and sciences. By encouraging students to conduct follow-up enquiries at school, the programme fostered a long-term engagement with



Local Whitianga school children at Buffalo Beach learning about HMS *Buffalo* (top left); the imitation maritime archaeology diving/wreck survey activity setup and a school student participating in the activity (bottom left and right) | photos HMS Buffalo Re-examination Project 2021

history, archaeology, and conservation. Students shared their experiences with their families, further spreading awareness of the HMS *Buffalo* and its importance. Additionally, the program inspired regional school students to consider careers in natural and social sciences (Mercury Bay Museum n.d.).

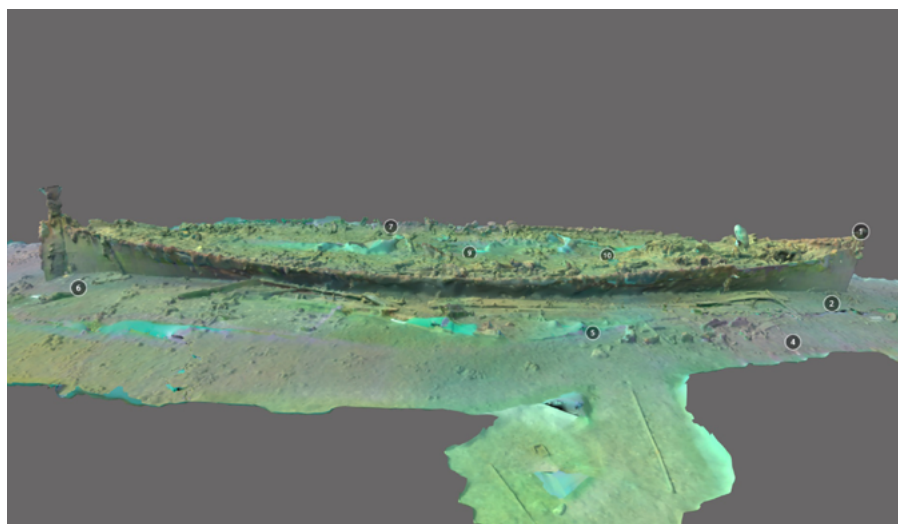
The project's commitment to community involvement and public education was recognised through the New Zealand Archaeological Association Public Award in 2022, as well as the international Martin Davies Award for Best Public Archaeology Initiative by the Australasian Society for Historical Archaeology (RNZ 2022; ASHA n.d.). Furthermore, as a result of the research and survey work, a detailed 3D digital model of the HMS *Buffalo* shipwreck was produced, allowing virtual access to the site for those unable to visit in person (HMS Buffalo Project 2023). This model serves as an innovative tool for education and outreach, further enhancing public engagement with New Zealand's maritime heritage.

DISCUSSION

New Zealand's maritime cultural heritage represents a significant aspect of its history, offering valuable insights into the country's interactions with the sea and its diverse communities. This heritage spans a variety of submerged sites, from Māori waka landings to European shipwrecks, reflecting centuries of seafaring traditions and maritime activities. Recent developments in maritime archaeology, particularly through citizen science initiatives, have allowed both the public and academics to engage with and protect these underwater cultural assets. Training programs offered by AIMA/NAS and GIRT Scientific Divers and projects such as the HMS Buffalo Re-examination Project have not only raised awareness about the country's maritime history but have also integrated communities in archaeological and conservation research, fostering a deeper connection to their shared past.

These initiatives have highlighted the multifaceted value of maritime heritage, which goes beyond its archaeological significance to include ecological, social, and economic benefits. As highlighted previously, the collaboration between local communities, educational programs, and underwater surveys has fostered a greater understanding of how submerged sites contribute to our understanding of history, marine biodiversity, and broader societal connections. This growing engagement with maritime heritage continues to shape New Zealand's relationship with its coastal and marine landscapes, providing new opportunities for sustainable tourism, education, and conservation efforts.

Maritime cultural heritage is an invaluable resource of the nation's historical narrative. The sea and its associated sites –whether shipwrecks, inland sub-

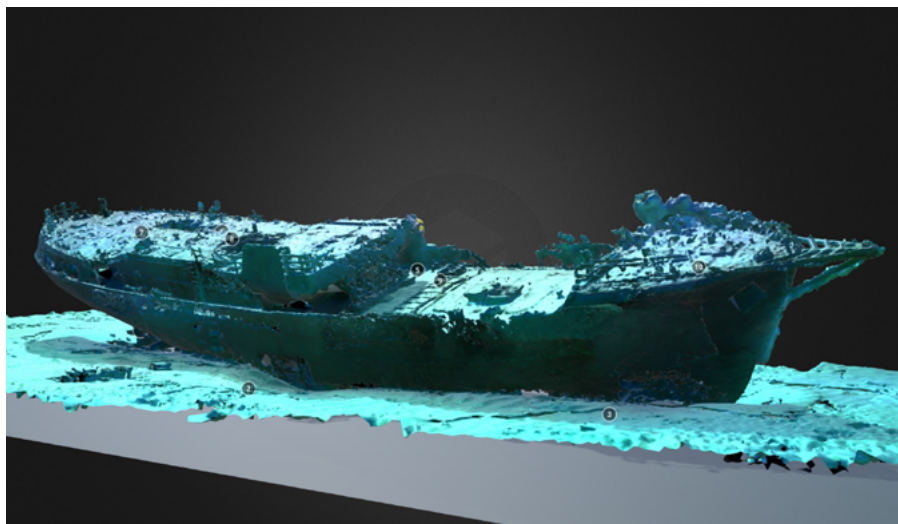


A screenshot of the 3D digital model of *Othello*, produced by GIRT Scientific Diver trainees | photo GIRT Scientific Diver, Sketchfab 2025

merged settlements, or other maritime infrastructure— serve as vital windows into the past, offering insights into human interaction with the environment.

Further, these sites are not merely archaeological artefacts; they are assets that connect communities with their history, ecosystem, and the broader maritime world. Projects aimed at uncovering, preserving, and educating the public about these cultural resources contribute to a shared understanding of New Zealand's past. As maritime archaeology and citizen science programs advance, the opportunity to reconnect with these maritime sites grows, providing a platform for New Zealanders to explore their seafaring origins and maritime connections, as exemplified by initiatives like the HMS *Buffalo* Re-examination Project, AIMA/NAS training, and the work of GIRT Scientific Divers.

The importance of reconnecting with maritime heritage has been highlighted by community-based projects that integrate local people into the process of archaeological research (Marshall 2002; Joura 2025). The HMS *Buffalo* shipwreck, an important historical site from the 1840s, offers an example of how such connections can be made. By involving local divers and community members in archaeological surveys and research, these projects bring maritime history to life. Furthermore, such initiatives foster a deeper understanding of the history of shipwrecks, the technology of maritime travel, and their significance in shaping New Zealand's development. The HMS *Buffalo* Project, in particular, has brought this connection to the public through educational outreach, including school programs that allow students to learn about the shipwreck's history while experiencing maritime archaeology through imitation underwater surveys. This approach encourages a broader engagement with maritime heritage beyond traditional academic circles, giving local



A screenshot of the 3D digital model of *Rainbow Warrior* created after the 2018 diver survey | photo GIRT Scientific Diver survey, Sketchfab, 2025

communities an active and custodian role in preserving and sharing their maritime past.

Raising awareness about maritime heritage is essential for ensuring that these sites are protected for future generations. Through community-driven projects, the public is becoming more conscious of New Zealand's maritime history. The school programs developed as part of the HMS Buffalo Project introduced local children to the practical aspects of archaeology, as well as to the significance of the shipwreck itself (Mercury Bay Museum n.d.). These experiences also empowered the children to share their new-found knowledge with their families, further embedding the importance of these sites in the community's collective memory. By creating programs that blend formal education with hands-on learning, these projects help cultivate an informed public that understands and values New Zealand's rich maritime heritage.

The social, ecological, and economic values that can be gleaned from maritime heritage sites cannot be overstated. These sites offer significant opportunities for scientific research, especially in areas such as marine life colonisation and climate change. Shipwrecks, for example, often provide habitats for diverse marine species, contributing to biodiversity in otherwise barren underwater environments. They can also act as baselines for investigating impacts from commercial fishing (Hickman et ál. 2024). By studying the way marine ecosystems develop around these structures, researchers can better understand the role such sites play in marine ecology and climate change monitoring. At the same time, these sites offer a unique perspective on the adaptation of human-made structures to natural forces. By involving and training local divers and citizens in surveys and research through

programs like GIRT Scientific Divers, such projects contribute vital data for the long-term protection and management of these underwater sites (Viduka and Edney 2021; GIRT Scientific Divers 2024a). This not only benefits the archaeological community but also fosters environmental stewardship by allowing the public to directly engage with and contribute to preserving New Zealand's maritime heritage.

Beyond their scientific value, these maritime sites also have tangible economic benefits. Past and continued interest in New Zealand's shipwrecks, including *Rainbow Warrior*, HMNZS Canterbury, *MS Mikhail Lermontov* and others, spurred the development of eco-tourism, particularly diving tourism. Local businesses in coastal regions benefit from the influx of divers and tourists who are drawn to the opportunity to explore New Zealand's shipwrecks. As more wreck sites are documented and made accessible to the public, there are further opportunities for sustainable marine tourism that can drive local economies. Additionally, the recognition of shipwrecks as historical landmarks enhances local pride, leading to increased engagement with cultural heritage sites and contributing to the community's identity (Bennett, Gainsford and Cox 2021). This synergy between archaeological research, environmental conservation, and local economies demonstrates the multifaceted value of maritime heritage and it is citizen science training like GIRT Scientific Divers and AMIA/NAS that provide the tools to enable such synergy.

Furthermore, New Zealand's maritime cultural heritage has a significant role to play in global discussions about maritime archaeology. Through collaborative international projects and citizen science initiatives, such as those involving AIMA/NAS and GIRT Scientific Divers, New Zealand is contributing to a broader global effort to document, preserve, and study underwater cultural heritage sites. These collaborative efforts not only enhance New Zealand's connection to the South Pacific but also extend to the international maritime heritage community. As maritime archaeology continues to develop, New Zealand remains a key participant in global initiatives that seek to understand and protect shared maritime histories (Heritage New Zealand 2021). This international engagement reinforces the importance of New Zealand's maritime heritage, both as a national treasure and as a significant part of the global heritage landscape.

CONCLUSION

In conclusion, New Zealand's maritime cultural heritage plays a crucial role in connecting communities to their past while also offering significant social, ecological, and economic opportunities. The efforts of citizen science programs like AIMA/NAS, GIRT Scientific Divers, and the HMS Buffalo Re-examination Project have brought this heritage to the forefront of public

awareness, encouraging both local and international engagement. These initiatives demonstrate the value of involving communities in archaeological research, not only to preserve the past but also to ensure its ongoing relevance in understanding and addressing contemporary environmental and social issues. By fostering education, community involvement, and sustainable tourism, New Zealand's maritime heritage is poised to continue playing a vital role in understanding the country's past, while strengthening its connections to the broader Pacific and global maritime cultural heritage community.

BIBLIOGRAPHY

- AIMA [The Australasian Institute for Maritime Archaeology] (2024) *AIMA / NAS Training Course*. Available at: <https://www.aima-underwater.org.au/shop/category/courses> [Accessed: 15/01/2025]
- Aragon, E., Mileszczyk, M., Rodríguez, J. and Staniszewska, J. (2022) Punta Prima Project: In Situ Preservation of a Roman-Punic Shipwreck Near Formentera Island (Spain). An Educational Experience. In: *Archaeology: Archaeology: Just Add Water, «Światowit» Series U, Warsaw Seminar on Underwater Archaeology*, vol. III. Warsaw: University of Warsaw
- ASHA [Australasian Society for Historical Archaeology] (2025) Previous Award Winners. Available at: <https://asha.org.au/award-winners.html/> [Accessed:15/01/2025]
- Bennett, K. (2021) *Shipwright Artistry: Cultural Transmission of English Colonial Ship Design and Construction during the Eighteenth and Nineteenth Centuries*. Unpublished doctoral thesis, Flinders University. Available at: <https://theses.flinders.edu.au/view/3fc4cd57-9116-46cb-9e24-f6e0029c4129/1> [Accessed: 15/01/2025]
- Bennett, K. and Parslow, B. (2025) Between Two Tides: Managing Intertidal Shipwrecks as an Archaeological Resource in Aotearoa New Zealand. In: Jones, J.E., Mires, C. y Zwick, D. (ed.) *Intertidal Shipwreck. Management of a Historic Resource in an Unmanageable Environment*. University of Florida Press
- Bennett, K., Gainsford, M. and Cox, R. (2021a) For Community, by Community-Promoting Maritime Archaeology in Aotearoa/New Zealand through the Re-examination of the HMS Buffalo Shipwreck (1840). *Australasian Journal of Maritime Archaeology*, vol. 45, n.º 1, pp. 25-48
- Bennett, K., Gainsford, M. and Cox, R. (2021b) The HMS Buffalo Re-examination Project, New Zealand. *Archaeological Association Newsletter*, vol. 64, n.º 3, pp. 123-130. Available at: <https://nzarchaeology.org/wp-content/uploads/2022/12/The-HMS-Bufferlo-Re-examination-Project.pdf> [Accessed: 18/01/2025]
- Bennett, K., Gainsford, M. and Cox, R. (2021c) The HMS Buffalo Re-examination Project Update. *Archaeology in New Zealand*, vol. 64, pp. 34-38
- Bennett, K. and Fowler, M. (2017) "In my Memory, it says Rarawa": Abandoned Vessel Material Salvage and Reuse at Rangitoto Island, Aotearoa/New Zealand. *International Journal of Historical Archaeology*, vol. 21, pp. 27-48
- Bennett, K. and Fowler, M. (2016) Rich Pickings: An Analysis of Opportunistic Behaviour at Rangitoto Island, Aotearoa/New Zealand. *Journal of Maritime Archaeology*, vol. 11, pp. 179-196
- Carter, M. (2019) *Manufacturing Identity: Pākehā Shipbuilding and the 'Middle Ground' in Aotearoa New Zealand*. Tesis doctoral inédita, La Trobe University
- Carter, M. and Bennett, K. (2022) Underwater Cultural Heritage in Aotearoa New Zealand: Challenges and Opportunities. In: Hafner, A., Öñiz, H., Semaan, L. y Underwood, C.J. (ed.) *Heritage at Risk. Heritage Underwater at Risk: Treats-Challenges-Solutions*. Paris: ICOMOS, pp. 94-98
- Carter, M. and Dodd, A. (2015) Maritime Archaeology in New Zealand: Trials, Tribulations and Opportunities. En: Tripathi, S. (ed.) *Shipwrecks Around the World; Revelations of the Past*. New Delhi: Delta Book World, pp. 511-525
- Dodd, A. (2003) Opportunities for Underwater Archaeology in New Zealand. *Archaeology in New Zealand*, vol. 46, n.º 3, pp. 151-160
- GIRT Scientific Divers (2023) "Terrific fun yesterday monitoring the Othello shipwreck at Kiapipi Shipyard, Rakiura/Stewart Island with new GIRT Scientific Diver members from Dunedin...". Facebook, 27 de febrero de 2023. Available at: <https://www.facebook.com/GIRTscientificdivers/posts/terrific-fun-yesterday-monitoring-the-othello-shipwreck-at-kiapipi-shipyard-raki/3318401028398054/> [Accessed: 15/01/2025]
- GIRT Scientific Divers (2024b) What a day on the Rainbow Warrior at the Cavalli Islands in New Zealand. While the visibility was less than marvellous, we did get in three dives surveying the..., Facebook, 29 September 2024. Available at: <https://www.facebook.com/share/p/18YQU7SzRB/> [Accessed: 15/01/2025]
- GIRT Scientific Divers (2025) About GIRT. Available at: <https://www.girtsd.org/about> [Accessed: 15/01/2025]
- Heritage New Zealand (2024) Heritage Quarterly Ngahuru Autumn 2024, 23rd February 2024. Available at: https://issuu.com/heritagenz/docs/hq_autumn_2024 [Accessed: 22/01/2025]
- Heritage New Zealand (2021) Re-examining the HMS Buffalo Shipwreck. Heritage Quarterly Kōanga Spring 2021, 20th August 2021, pp. 14-19. Available at: https://issuu.com/heritagenz/docs/hq_spring_2021/s/13151212 [Accessed: 22/01/2025]
- Hickman, J., Richards, J., Rees, A. and Sheehan, E.V. (2024) Shipwrecks act as de facto marine protected areas in areas of heavy fishing pressure. *Marine Ecology*, vol. 45, n.º 1, pp. 1-12. Available at: <https://doi.org/10.1111/maec.12782> [Accessed: 11/03/2025]
- HMS Buffalo Project (2023) *HMS Buffalo shipwreck. Sketchfab*, 31 de mayo de 2023. Available at: <https://sketchfab.com/3d-models/hms-buffalo-shipwreck-4c171a9f2bca4bea906746564a29eeab> [Accessed: 18/01/2025]
- Hutching, G. (2006) Story: Shipwrecks. Te Ara. *The Encyclopedia of New Zealand*. Available at: <http://www.TeAra.govt.nz/en/shipwrecks> [Accessed: 15/01/2025]

- Ingram, C.W., Wheatley, P.O., Diggle, L., Diggle, E. and Gordon, K. (2007) *New Zealand Shipwrecks: Over 200 Years of Disaster at Sea*. Auckland: Hodder Moa
- Johns, D., Irwin, G. and Sung, Y.K. (2014) An early sophisticated East Polynesian voyaging canoe discovered on New Zealand's coast. *Proceedings of the National Academy of Sciences*, vol. 111, n.º 41, pp. 14728-14733
- Joura, S. (2025) *Buoyed by Community: Combining Local Knowledge and Maritime Archaeology on Stewart Island/Rakiura, New Zealand. Unpublished Masters of Maritime Archaeology dissertation*. Flinders University
- Marshall, Y. (2002) What is community archaeology? *World Archaeology*, vol. 34, n.º 2, pp. 211-219
- MercuryBayMuseum(2025)*HMSBuffaloRe-examination Project*. Available at: <https://mercurybaymuseum.co.nz/hms-buffalo-project/> [Accessed: 18/01/2025]
- RNZ [Radio New Zealand] (2022) HMS Buffalo Project recognised in Archaeological Awards 2022. *Radio New Zealand*, 14th December 2022. Available at: <https://www.rnz.co.nz/national/programmes/afternoons/audio/2018871222/hms-buffalo-project-recognised-in-archeological-awards-2022> [Accessed: 18/01/2025]
- Smith, I. (2019) *Pākehā Settlements in a Māori World*. Wellington: Bridget Williams Books
- Viduka, A. (2020a) A maritime archaeological conservation citizen science programme for individual benefit and good public outcomes: GIRT Scientific Divers. *Journal of Community Archaeology & Heritage*, vol. 9, n.º 2, pp. 71-87. Available at: <https://doi.org/10.1080/20518196.2020.1858544> [Accessed: 30/05/2025]
- Viduka, A. (2020b) Going for the win-win: including the public in underwater cultural heritage management through citizen science in Australia and New Zealand. *The International Journal of Nautical Archaeology*, vol. 00, n.º 0, pp. 1-19
- Viduka, A. and Edney, J. (2021) GIRT scientific divers citizen science programme: Volunteer motivations and characteristics. *Journal of Community Archaeology & Heritage*, vol. 9, n.º 3, pp. 143-160
- Viduka, A., Sutton, B., Hutchison, A., Low, C. and Dempsey, T.P. (2020) A Report on the GIRT Scientific Diver Survey of the Rainbow Warrior, Cavalli Islands, New Zealand. *Journal Maritime Archaeology*, vol. 16, pp. 3-26