

# LICENSING OF SCIENTIFIC RESEARCH ACTIVITIES IN BERMUDA'S EXCLUSIVE ECONOMIC ZONE (EEZ)

## *Good practice*

Marine mammals  
management toolkit



## Description

### / Introduction

Prior to the introduction of the application for scientific research activities in Bermuda's Exclusive Economic Zone (EEZ), scientists, both local and from overseas, were conducting research in Bermuda's EEZ but the managers responsible for local environmental decision making were often unaware of the research being conducted. Even if the managers knew about the research they rarely received a report with the results of the research, so unless the results were published in the scientific literature the information was not available to the managers. There was no overall, general, coordination of research activities so that duplications of projects or activities, in particular any that involved direct damage to reefs, corals, etc, could be avoided or so that minor adjustments or additions to projects that would be responsive to local issues, could be suggested and considered, for example minor changes in data acquisition and recording so that projects on turtles could provide data relevant to establishing trends in population sizes and demographics.

The application for scientific research is reviewed by technical officers of the Bermuda Department of Environment and Natural Resources (DENR) to prevent research duplication and ensure that environmental impacts are minimal. If the research is approved a licence with terms and conditions is issued to the researchers and they must sign the licence stating they agree to the terms and conditions. One of the conditions is that a report with the results must be submitted to the DENR ensuring that the knowledge from the research is captured for the benefit of the island.

The licensing process for scientific research has been in place for two years.

## / Involved stakeholders

- Beneficiaries: Bermuda, its people and wildlife, benefit from the licensing of research activities.
- Users: Scientists, both local and foreign, wishing to conduct research in Bermuda's EEZ are the users of this good practice.
- Implementing agency: The Bermuda Department of Environment and Natural Resources (DENR) are the licensing agency.

## / Impact

The environmental managers are aware of what research is being conducted in Bermuda's EEZ, they are able to prevent duplication of the research, minimize environmental impacts and ensure the knowledge generated by the research is captured and informs local environmental decision making. The research applications are also a means to establish additional control over removal of intellectual and physical properties (such as plant and animal specimens or parts thereof; items of historical significance, etc) of the people of Bermuda.

## / Innovation

This kind of research application has been in practice in many countries, for many years, however, the process of recognising the issues and potential impacts with data from research being removed from the country without appropriate consultation, communication and reporting was recognised in Bermuda. This, therefore, resulted in the implementation for research applications in Bermuda for the first time.



## Analysis

### / Sustainability

- Legislation that requires the issuance of a licence for research activities
- A team of scientists/managers to review the applications and issue the licences.

### / Success factors & Sustainability

Legislation requiring the issuance of a licence for scientific research activities needs to be in place to ensure the sustainability of the process alongside a team of scientists and managers to review the applications and issue the licences.

### / Constraints

- Some overseas researchers, particularly those not affiliated with a local research institution, may be unaware that a research license for scientific activity is required for research in Bermuda.
- The Bermuda Department of Environment and Natural resources does not have the resources to ensure that the researchers abide by all the terms and conditions of their licenses.
- General resistance to a change in practice, by scientists and others.

The first two challenges are yet to be fully addressed.

### / Replicability

This practice could be used by other countries, particularly small islands, but they would need to create their own legislation for the application and distribution of licenses whilst ensuring resource to enable review and issue.

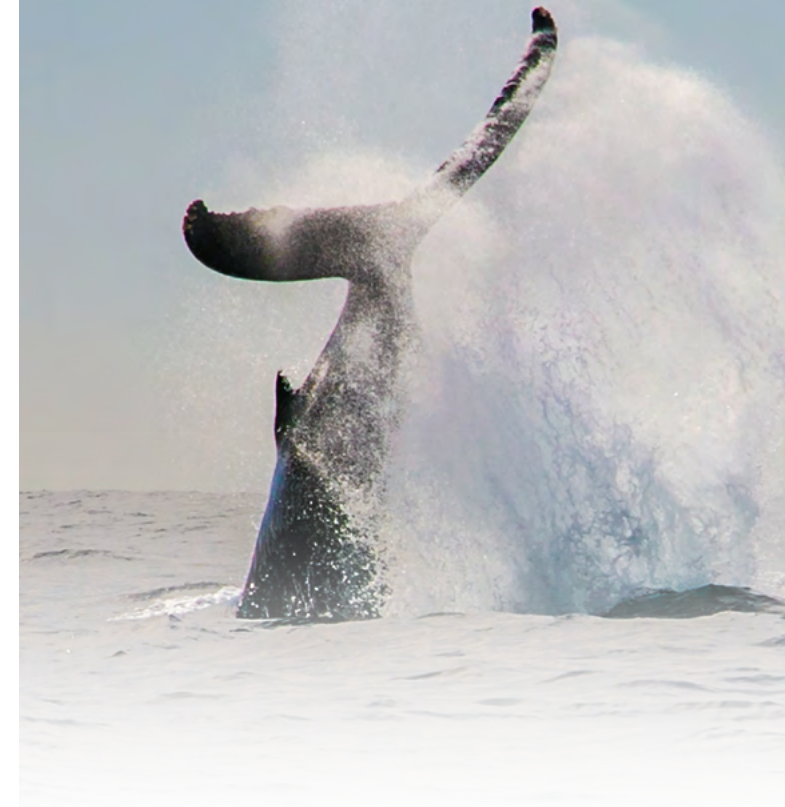
## Conclusion

The licensing process ensures that the environmental managers at the Department of Environment and Natural Resources (DENR) know about the research being carried out in Bermuda's EEZ and that they receive the information from the researchers. The managers are able to use the information generated to fill-in information gaps about Bermuda's biota and abiotic environment, thus enabling them to make more informed management decisions.

For example, the humpback whale is protected under Bermuda's Protected Species Act 2003 and as a result the population should be monitored. The DENR does not have the resources to monitor the humpback whale population around Bermuda, but a citizen scientist who has been licensed by DENR to conduct research which involves filming humpback whale behaviour using drones is required as a condition of his license to provide a report on his observations regarding humpback whales each year before his license can be renewed.

The report provides information on the number of humpback whales the citizen scientist has observed in a season, number of flukes catalogued, repeat sightings, when the first and last whale of the season was observed, and other information about the humpback whales that the DENR would not be able to obtain itself. Without the report being a condition of the license the Department would not be in possession of this information and would not be aware of the results of the study until a documentary was released to the public. DENR can use this information to develop a management plan for this species and improve the management of activities that may impact the humpback whale, for example, improved guidelines for whale watching.

## Marine mammals management toolkit



### Licensing of scientific research activities in Bermuda's Exclusive Economic Zone (EEZ)

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**Marine protected areas:**

Bermuda's Marine Mammal Sanctuary (Bermuda's EEZ)

**Location/geographical coverage:**

Bermuda (32.4°N, 64.8°W) and its exclusive economic zone (EEZ)

**Contact details:**

Bermuda Department of Environment and Natural Resources (DENR), Marine Management Section email: [envresearch@gov.bm](mailto:envresearch@gov.bm)

**URL & Documents:**

<http://environment.bm/protected-species>

**Keywords:**

Scientific research activities, licensing, marine mammal sanctuary, marine spatial planning, research and reporting, local knowledge