

CONSERVATION TRANSLOCATION

**Recommendations
based on costs,
benefits and history**

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INTRODUCTION

As more marine ecosystems are being threatened and face eminent extinction due to increased negative impacts of climate change and other anthropogenic disturbances, conservation translocation efforts and the number of projects are expected to increase. For marine conservation translocation efforts, the most common types of translocations are reintroductions and reinforcements. However, as with any form of conservation, there are both costs and benefits to consider before planning these projects. There is also much to learn from previous attempts of similar projects. When all is taken into consideration, there is hope to inform policy and give general knowledge of translocation projects to help achieve higher success rates and better conserve marine species.

RECOMMENDATIONS

1 EXTENSIVE BACKGROUND KNOWLEDGE

Thorough research should be conducted on the species and habitat for successful translocation efforts. Species behavior knowledge is particularly important as it was found to be a common problem reported from previous projects.

2 SECURE FUNDING AND LONG-TERM MONITORING

As conservation translocation can be very costly, it is important that funding is secured for the full duration as well as the long-term monitoring required after the transport of species.

3 COLLABORATION OF MULTIPLE STAKEHOLDERS

Public support was a common problem reported for marine conservation translocation projects. Translocation projects can also often be at odds with other industries impacted directly or non-directly by the translocation. Collaboration and proper consultation with various stakeholders can improve chances of a supported and successful project.

4 REMOVAL OF INITIAL PRESSURE(S)

Like any other conservation project, it is critical to remove or relieve pressures such as human disturbances or pollution on the habitat or ecosystem before beginning. This will ensure that the species or habitat has a better chance of successful translocation.

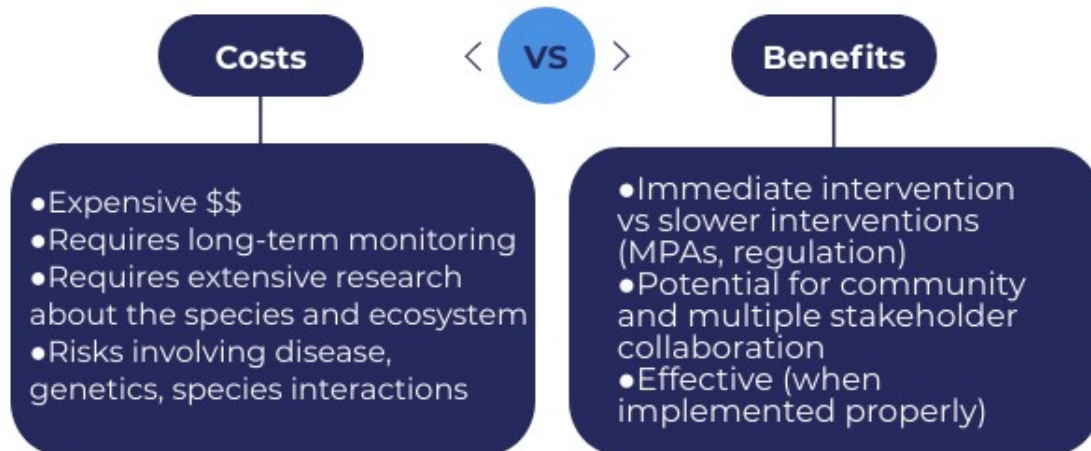
Learning from international efforts

The IUCN Conservation Translocation Specialist Group

This network of volunteer professionals aim to provide information about translocation efforts through the Global Re-introduction Perspective Series. They provide valuable records and information from projects around the world.

MARINE CONSERVATION TRANSLOCATION

It is critical to weigh both the costs and benefits before beginning a marine conservation translocation project:



From Case Studies

Failure to Reintroduce Sea Otters in Oregon

In the early 1970's, Oregon's first sea otter translocation project failed for reasons hypothesized from ecological differences between con-species to the more likely consequence of mortality and emigration of the transported individuals. The project failed to consider the behavior of the species. As well, the small reintroduction numbers could not mitigate the impacts of emigration and mortality as higher numbers have been found to do. Reintroduction of sea otters is also at odds with the fisheries industry due to sea otter's appetite for invertebrates that support many industries.



Sea otter

Successful Restocking of Blue Crab in Chesapeake Bay

Over-exploitation led to a stock replenishment program for the blue crabs. Life-cycles of the crabs were studied extensively and juveniles were produced and grown carefully considering knowledge gained from research. The successful release of juveniles led to population increases by up to 250%. For this program, fisheries industry, government agencies and the scientific community worked together to achieve a similar goal. Fishermen compliance to the previously established MPA in the area, and the NOAA Chesapeake Bay Program grant also contributed significantly to the success of the restocking project.



Blue crab at Chesapeake Bay
(Chesapeake Bay Program website)

POLICY IMPLICATIONS

Looking at the costs and benefits of conservation translocation as well as historical efforts show that marine translocation is a promising endeavor with the proper planning and preparation. Therefore it merits a strong consideration in conservation efforts. Guidelines should be set by governments to improve the success of translocation projects and build from knowledge gained during previous projects. However, each species and habitat is unique and it should be acknowledged that there is yet any guaranteed method or guideline to achieve success.

CONCLUSIONS

Conservation translocation is a valuable conservation strategy that can be used as a form of immediate intervention when species need it most. With further research and policy to guide marine conservation translocation efforts, it can become a very effective method of species and ecosystem conservation in our oceans.