



# THE OCEAN FOUNDATION

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## *Pacific Leatherback Turtle Conservation Fund*

### *Business Plan*

*June 2008*

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A newly hatched baby leatherback turtle heads for the open ocean. Only one out of every thousand leatherback turtle hatchlings will survive to reach sexual maturity.

Photo credit: Linda Schonknecht/Marine Photo Bank

## Chapter 1: Executive Summary

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### Background

The Leatherback turtle (*Dermochelys Coriacea*) lives in and traverses all of the world's oceans, in both tropical and temperate waters. A wide ranging species, it can be found migrating and foraging in expanses of both the Pacific and Atlantic Oceans and seascapes in between. In addition, the Leatherback turtle is known to nest in many locations world-wide. Pacific Leatherback turtles (PLT) have the most extensive range of marine turtles, and in fact, of any living reptile. Pacific Leatherback turtles nesting in Indonesia migrate to the coast of California and British Columbia, where they forage in the productive waters of the north Pacific, and others originating from the eastern coast of Papua New Guinea are often found along the eastern coast of Australia, or near New Zealand. PLTs that nest in the eastern Pacific, on beaches in Mexico and Costa Rica, tend to head southward, foraging off the coast of Peru and Chile. In the western Pacific Ocean, they nest primarily in Indonesia, Papua New Guinea, the Solomon Islands, and in smaller numbers in other countries throughout the region.

Unfortunately, Pacific Leatherback populations have been in steep decline for the past several decades, and the species is now listed as critically endangered on the IUCN Red List. Over the past ten years, many efforts have been made to understand the current status of the PLT: their key habitats, the geographic distributions of remaining populations, and identifying and addressing the threats to their survival. Experts and practitioners are increasingly equipped to understand the solutions to these threats. Yet even now, when the PLT crises could not be clearer, when threats and necessary actions are generally understood, and when people are prepared to act, we face a shortage of funding, human resources, political will, effective communication and coordination of capacity to ensure the survival of this iconic species.



An adult female leatherback digs her nest in the sand before laying her eggs. Leatherbacks can lay over 100 eggs in a single nest, and can nest up to a dozen times from a single mating session.

Photo credit: Canaveral National Seashore/Marine Photo Bank

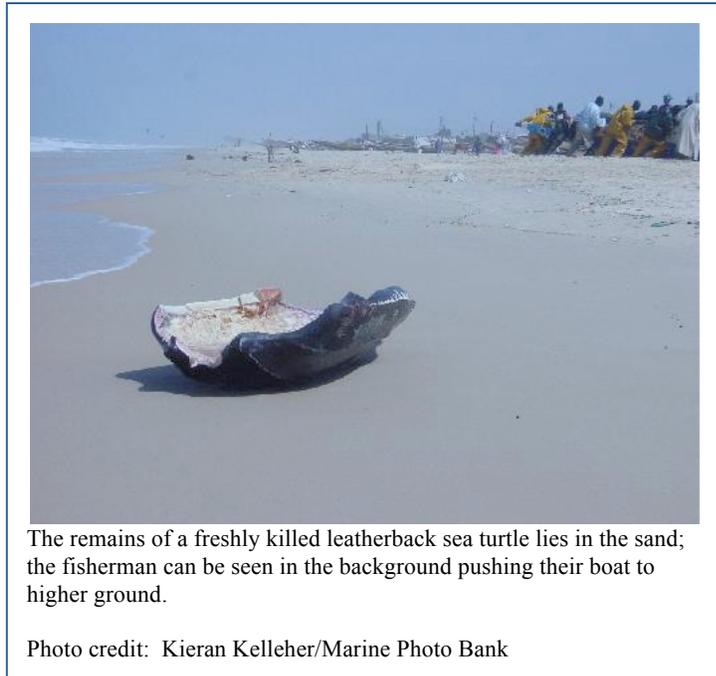
### *The PLT Conservation Fund Conception*

The Western Pacific Regional Fishery Management Council (WPRFMC), the National Oceanic and Atmospheric Administration (NOAA) and WorldFish Center launched the Bellagio Sea Turtle Conservation Initiative in 2003 to think through and to devise a framework for collective action: the Bellagio Blueprint. This is an action plan that identifies steps to be taken to restore Pacific marine turtles populations generally, including those of the PLT, organized around four central themes, and referred to as the Bellagio Blueprint action points:

1. The protection of all nesting beaches.
2. Reducing turtle take in at-sea and coastal fisheries.
3. Stimulating Pan-Pacific policy actions.
4. Encouraging the sustainability of traditional use of sea turtles.

Following upon the development of the Bellagio Blueprint, a consensus on the need for the development of a Pacific Leatherback Turtle Conservation Fund (PLTC Fund or Fund) is clear. The Ocean

Foundation, a 501(c)(3) international public foundation, was selected to design and manage such a Fund. The Ocean Foundation, in turn, partnered with the Conservation and Community Investment Forum on the development of this Business Plan, outlining the activities and priority focus areas and the management and financial requirements for the PLTC Fund.



The objectives of the PLTC Fund will be to provide sustained funding and to serve as a coordinating mechanism that fully supports current and future efforts to reverse the Pacific Leatherback trajectory toward extinction. It proposes to do so by coordinating and focusing organizations, and consolidating and focusing funds, under common and strategic priorities and in a manner guided by sound, fair and transparent principles.

### *PLT Conservation Fund Priorities*

As discussed in detail in this business plan, the PLTC Fund will be designed to be a sustainable, long-term fund that provides strategic grants to parties involved in the protection of PLTs across the Pacific in three primary focus areas: 1) Nesting beach programs, 2) Marine environments, and 3) Policy, institutional capacity and coordination. This aligns with the objectives and focus called for in the Bellagio Blueprint. A brief discussion of each focus area follows.

#### ***Nesting Beaches***

Protecting nesting beach habitats and nests is generally agreed to be a cost-effective and essential way to ensure the long-term sustainability of leatherbacks (Gjersten, Unpublished). The overall objective of any nesting beach project is the conservation and recovery of the leatherback turtle population and habitat through measures designed to increase and monitor nest counts, nesting female counts, and hatch success rates. In order for these efforts to succeed, a policy framework that establishes the necessary and appropriate conservation program elements should be in place and enforced. Similarly, the needs and beliefs of the communities that interact with the leatherbacks need to be well understood, and effective programs designed to align the interests of the community with those of the turtle.

**Table i. Nesting Beach Focus**

Focus Area	Priority Goals
Scientific Support	<ul style="list-style-type: none"> <li>• Deeper understanding of the species population dynamics, nesting cycles, life cycles, habitat dynamics, migration patterns, etc.</li> <li>• Deeper understanding of community and economic options</li> </ul>
Monitoring	<ul style="list-style-type: none"> <li>• Data collection.</li> <li>• Protection against predation, habitat destruction, direct take, etc</li> <li>• Increase hatchling success rates.</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Provide local communities reasonable access to alternative economic opportunities other than the harvest and collection of eggs and turtles, both directly and indirectly.</li> </ul>
Policy	<ul style="list-style-type: none"> <li>• Establish policies to ensure that necessary and appropriate conservation programs are in place.</li> </ul>

This PLTC Fund will focus on PLT nesting beaches in six critical countries containing more than 90% of the remaining known PLT nesting beaches in the Pacific: Indonesia, Papua New Guinea, the Solomon Islands, Mexico, and Costa Rica. There will be an emphasis on the Western Pacific within this context due to greater need and opportunities there. The PLTC Fund will focus on the issues identified in the above table to enhance nesting beach programs in these five priority countries.

### **Marine Environment**

The odds of a juvenile PLT surviving the 10-15 years it takes to reach maturity and be able to produce its own offspring are quite low (approximately 1:1,000). Historically, a turtle that survived to adulthood would have had very few natural predators and could expect to live to 30-45 years. As human population has grown over the past few decades, demands on the world's oceans have increased, fleet numbers have multiplied, fish stocks have dropped, and mortality rates of mega-fauna, caught incidentally as "bycatch," have soared.

**Table ii. Marine Environment Focus**

Focus Area	Priorities
Gear Modification & Handling Techniques	<ul style="list-style-type: none"> <li>• Support the transition to circle hooks and fish bait for long-lines that have a record of PLT bycatch.</li> <li>• Focus on awareness and training for fishermen.</li> </ul>
Observer Programs	<ul style="list-style-type: none"> <li>• Hire additional observers and purchase additional observer nets, supplies, and waterproof gear.</li> </ul>
Policy Intervention	<ul style="list-style-type: none"> <li>• Hire policy manager to develop a clear position on policy for relevant industrial fisheries and that will intervene in various policy debates when necessary.</li> <li>• Support efforts that will secure or improve policy regulating bycatch in critical fisheries.</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Continue to support existing efforts, such as monitoring, community empowerment, outreach, and policy advocacy.</li> <li>• Increase livelihood support by conducting livelihood option survey (ie, ecotourism potential) and developing infrastructure for programs.</li> </ul>

The PLTC Fund will take a targeted approach to support important activities in fisheries that have a history of high leatherback bycatch rates and whose efforts overlap with critical migratory routes and foraging grounds.

***Policy, Institutional Capacity and Coordination***

Because PLTs migrate across the Pacific, policies that affect their well-being can be enacted at the local, national, regional, and international level, and across a wide expanse of geographies. Clearly, it would be impossible for the Fund to weigh in on every policy measure that impacts the Pacific Leatherback. Instead, the Fund will take a strategic approach, identifying specific forums and key issues to get involved in.

***PLT Conservation Fund Approach***

The PLTC Fund will provide a much-needed mechanism for financing of PLT conservation and recovery in both the Western and Eastern Pacific. It will be designed to be a sustainable, long-term fund to provide sustained, multi-year grantmaking that is both consistent and strategic. The Fund will be capable of comprehensive funding of all PLT conservation and recovery activities, but will start with some strategic priorities identified by experts. No single solution models will be included as it is clear that no single solution can ensure the future of the PLT.

In addition, the Fund will develop a diversified and targeted grant-making portfolio. This will include a capacity to address emergent projects. The Fund will work to complement the efforts of existing funds. The Fund may commission independent program evaluations or audits, and will regularly update its grant-making process, priorities and strategy (in a well founded, documented manner).

***PLT Conservation Fund Programmatic and Operational Cost Projections***

This Business Plan outlines the specific targeted focus areas and activities, and related costs, for the PLTC Fund. The funding requirements over 10 years were calculated based on assumptions and data largely dependent on two assumed scenarios: the “current scenario”- based on current and planned activities, whether limited or comprehensive in nature, and the “optimal” scenario - based on prioritized, additional actions necessary to fully protect the PLT. Because programs are often forced to operate below their base case scenario, or “current scenario,” due to funding gaps ensuring that existing programs can continue to operate is the fund’s first order of business. The PLTC Fund will first focus on meeting the funding requirements of the current scenario, eventually working towards funding an optimal scenario as outlined in this plan.

The total current scenario costs over a ten-year period are equal to a nominal \$15.12 million. This would require a \$26.38 million endowed fund (NPV) to cover the costs over the next 10 years if established now.

***Table iii. Current Scenario Total Costs (by Focus Area)–Nominal USD in Thousands***

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<b><u>Total Cost</u></b>	<b>1,282</b>	<b>1,417</b>	<b>1,336</b>	<b>1,389</b>	<b>1,397</b>	<b>1,463</b>	<b>1,566</b>	<b>1,701</b>	<b>1,735</b>	<b>1,840</b>
Nesting Beach Programs	1,126	1,252	1,157	1,199	1,202	1,257	1,347	1,461	1,481	1,580
Marine Environments	156	164	180	190	195	206	219	240	253	261
Policy, Inst. C.& C.	-	-	-	-	-	-	-	-	-	-

The total optimal scenario costs based on prioritized, additional actions necessary to fully protect the PLT over a ten-year period are equal to nominal \$25.24 million. This would require a \$42 million endowed fund (NPV) to cover the costs over the next 10 years if established now.

**Table iv. Optimal Scenario Total Costs (by Focus Area)–Nominal USD in Thousands**

<b>Total Cost</b>	<b>2,232</b>	<b>2,258</b>	<b>2,375</b>	<b>2,330</b>	<b>2,368</b>	<b>2,454</b>	<b>2,591</b>	<b>2,757</b>	<b>2,842</b>	<b>3,033</b>
Nesting Beach Programs	1,720	1,734	1,782	1,753	1,771	1,886	1,997	2,128	2,185	2,353
Marine Environments	357	365	430	410	426	392	414	445	469	487
Policy, Inst. C.& C.	155	159	163	167	171	175	180	184	189	194

Existing, committed PLT funding over the next ten years for all focus areas assessed is approximately \$2.13 million. The PLTC Fund aims to fill the gap between the existing funding and the necessary funding to ensure adequate PLT conservation efforts in either the current scenario or the optimal scenarios.

This Business Plan describes in detail the design and rationale for such a Pacific Leatherback Turtle Conservation Fund. We want to emphasize that this fund is specifically focused on the Pacific Leatherback Turtle (PLT). Other sea turtle schemes may include the PLT, but they do not specifically focus on it. In fact, a PLT specific fund pulls it away from the full mandate of Bellagio, which is for all sea turtle species. For example many fisheries challenges (bycatch) relate to all turtle species so effort to distinguish between others and the PLT is important within this plan. We must generally emphasize “urgency” of mission, need for “public outreach”, and need to “focus.” An advantage of the PLTC is that it really will be very focused.



A female leatherback returns to the sea after laying her eggs. Leatherbacks only come to shore to nest, and they almost always return to the beach where they were born, sometimes traveling thousands of miles to do so.

Photo credit: Mike Markovina/Marine Photo Bank