"Why Penguins Are More Important Than Ever For the Average American" By Michael Tobias and Jane Gray Morrison Copyright Dancing Star Foundation 2009

Several of the 17 species of penguin worldwide are in trouble: they face the very real possibility of extinction in this century. Most people love penguins. Therefore, most people are in trouble, goes the logic.

It may seem a reach to suggest that what happens in the deep icy southern hemisphere should really matter at the moment to Americans worried about paying their mortgages, or having a job tomorrow morning. And even if it does matter, goes the thinking, there is not a whole lot an individual can do to rescue the very rare Yellow-Eyed Penguins found in a few parts of New Zealand from potential oblivion, especially given the long-term trends and fall-out from global warming, a critical factor imperiling the birds. However, this is not entirely so. The same factors influencing penguins, will also, according to Energy Secretary Steven Chu, mean the possible demise of all agriculture in the State of California by century's end which, he added, could mean the collapse of California's major cities.

There is no escaping the fact the economic story of all nations mirrors precisely the greater ecological tapestry and imperatives that govern all money-related matters, namely, the biosphere and all of its biological parts. With as much as 50% or more of all life hanging in the balance depending upon what people do, or fail to do in coming years, we must get it right. That means factoring conservation into everything we tackle and think about; conservation of fresh water, clean air, the soil, wetlands and forests, oceans and streams.

We know many, though by no means all, of the vital connections to our health that nature implicitly provides. Frogs, for example, consume insects that transmit malaria. Malaria appears to be again mutating and killing millions of our kind, while we serve up hundreds of millions of frog legs every year on dinner plates, while at the same time destroying the habitat for those frogs that don't get eaten. A recent discovery of several new healthy frog species in Columbia's mostly remote Darien region shows that a vast amount of biodiversity is still out there – possibly 100 million species. There may be enough time to make this all work, to do our part to ensure the continuity of life on the planet. But it won't happen unless we are deliberate, swift and conscientious about it.

According to the U.S. Food and Drug Administration, roughly 62% of all drugs approved for cancer treatments come from a natural origin. What is keeping us alive is nature. But of the more than 400,000 known plant species, at least half are in danger of disappearing because of our actions. Well then, it should be obvious what we need to do: Save the plants, and much more. There are plenty of immediate financial incentives for doing so, if fundamental self-preservation of our species seems too vague an incentive.

A recent report entitled "Building Biodiversity Business" (\*1) suggests profound opportunities for sustainable ecologically-based enterprises that are profitable: \$120

billion for wildlife-related recreational activities in the U.S.; \$30 million acres under sustainable organic agriculture in Australia; \$620 billion accruing from global environmental goods and services worldwide in 2005; \$3.6 trillion in annual tourism revenues, employing some 200 million people where the largest gains appear to be happening specifically in the eco-tourism sectors; \$50 billion per year from the Kyoto Protocol carbon markets and growing; and, to top it all, probably the most profitable enterprise of all now fast emerging: alternative energy, formidably detailed in the new McKinsey Report (\*2). Witness California's rapid ascendancy in the realm of new hybrids. While the state's budget is in dire trouble, don't forget that some \$45 billion in payroll in that state comes from policies mandating higher energy efficiency and environmentally clean technologies, the same amount of money needed each year as projected by scientists to stabilize global ecosystems and prevent a raft of unprecedented extinctions. Moreover, the same offsets that are being utilized to understand and pave the way for carbon markets, are now being embraced by several countries as well as banks from the U.S. to South Africa to Switzerland - with respect to actual biodiversity offsets. A single acre of saved wetland can be worth as much as several hundred thousand dollars of mitigation value. Biodiversity business is just now in its infancy.

Recent discussion of a renewed Conservation Corps to help the National Parks, which first occurred under President Theodore Roosevelt with the mobilizing of a massive workforce of hundreds-of-thousands of recruits during the Great Depression to places like Yosemite, is one terrific idea. Billions of trees were planted across the U.S. as a result of that. Many other great notions are staring us in the face, from windows on every house and building that can be made to generate electricity, to opportunities in the classroom to convert every student into an ardent defender of wildlife, whether plants, mountain lions, or the very penguins who co-habit American bases in the Antarctic, like McMurdo and Palmer. The lives of those penguins depend upon the variation of a few degrees Celcius that affect the survival of the marine food sources that also support all creatures, great and small throughout the oceans.

Where serious gaps remain across America's biological landscape, particularly wildlands earmarked for road access and resource extraction, monoculture, suburban sprawl and countless other forms of biological fragmentation, there is by now a clear consensus that Americans overwhelmingly care about these issues as witnessed in the wilderness bill S.22 just passed by the Senate. People want their children to have a deeper connection to nature than merely experiencing it as stuffed in museums, caged in zoos or digitized on television. The economic opportunities all point to a renaissance in nature appreciation, park visits, and new protected areas that can help Americans, and people everywhere, get through depressing times. As New York Times columnist and author Thomas Friedman writes, "Green is the new Red, White and Blue."

(\*1) Joshua Bishop, Sachin Kapila, Frank Hicks, Paul Mitchell and Francis Vorhies, Copyright 2008 by Shell Intl. Ltd., the IUCN, and the authors.
(\*2) The McKinsey report, *Pathways to a Low Carbon Economy*, available online at: http://www.worldwildlife.org/climate/mckinseyreport.html