

The Use of Tropical Hardwoods in Transportation Infrastructure

Presented by **Tim Keating**, **Executive Director**Rainforest Relief

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www.rainforestrelief.org

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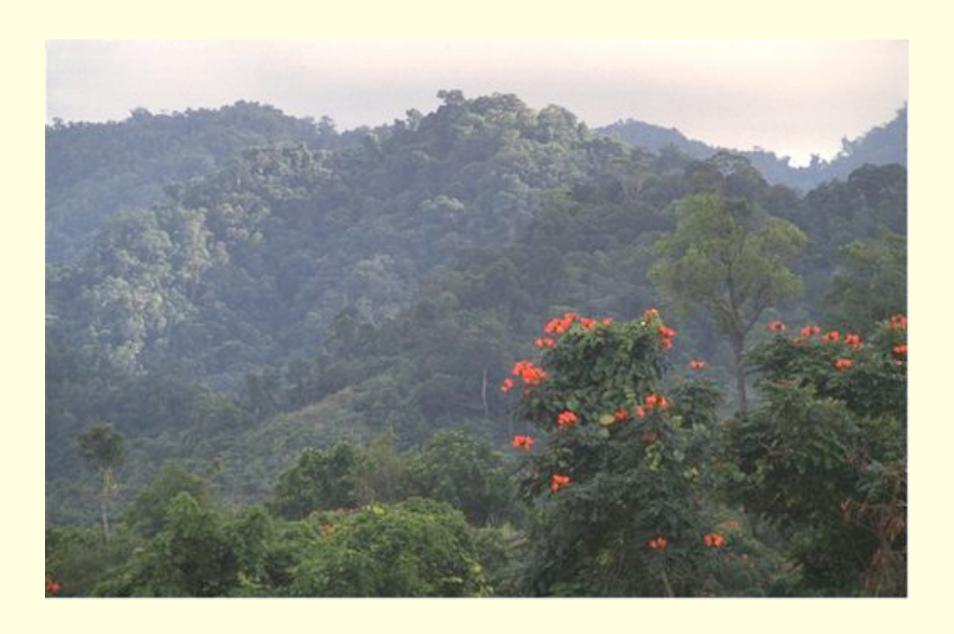












Photo © Kathy Prout













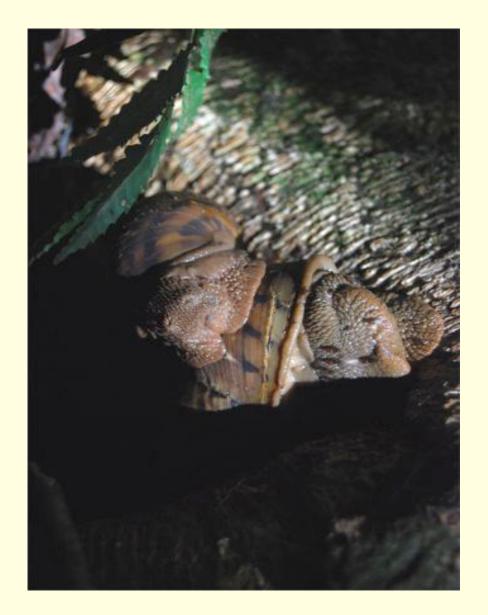






Due to the heat, the often extreme levels of precipitation and their age, rainforests are the planet's most productive engines of evolution.





Tropical rainforests support more species of life than all other ecosystems... combined.



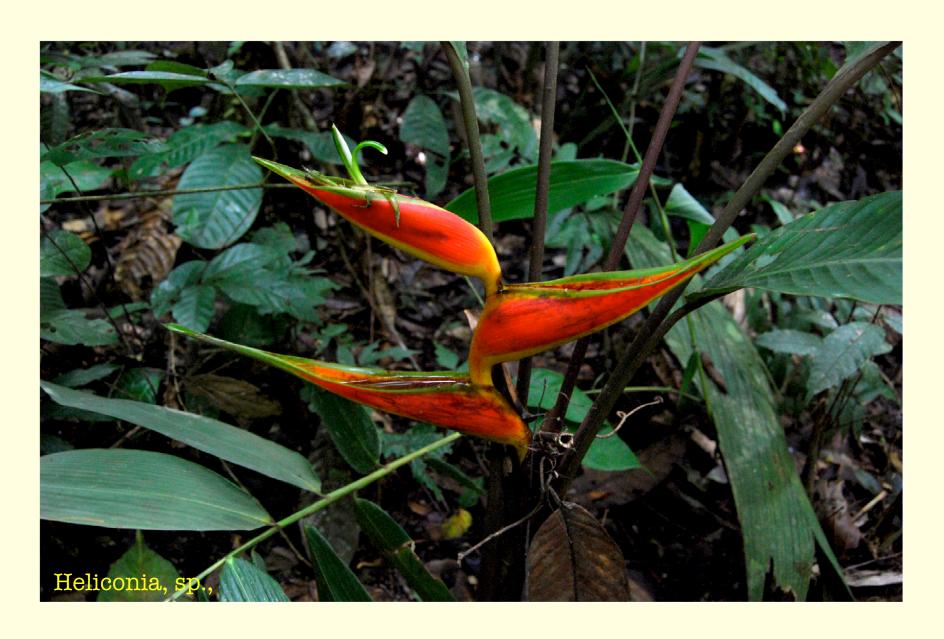






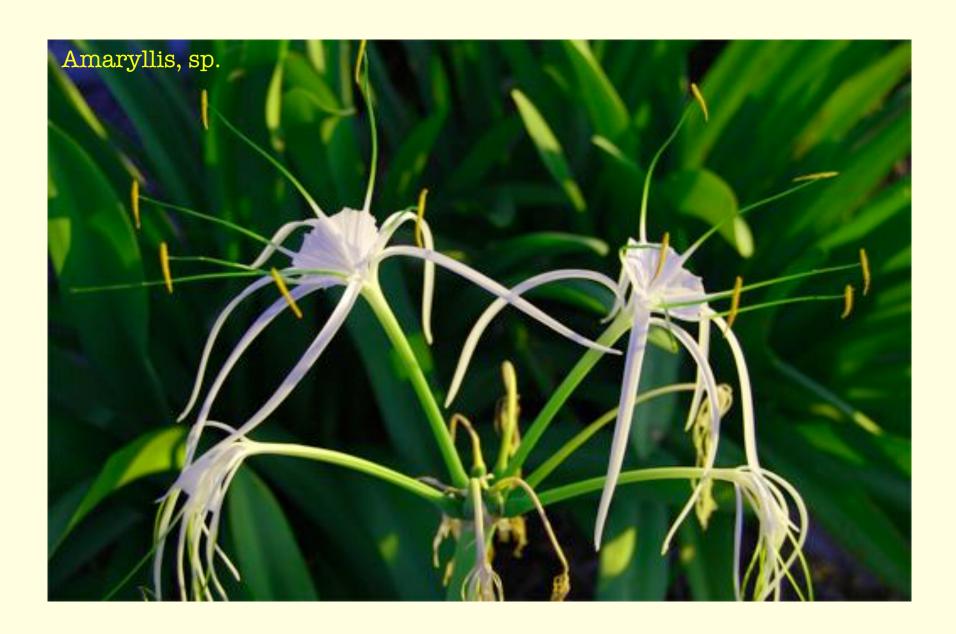






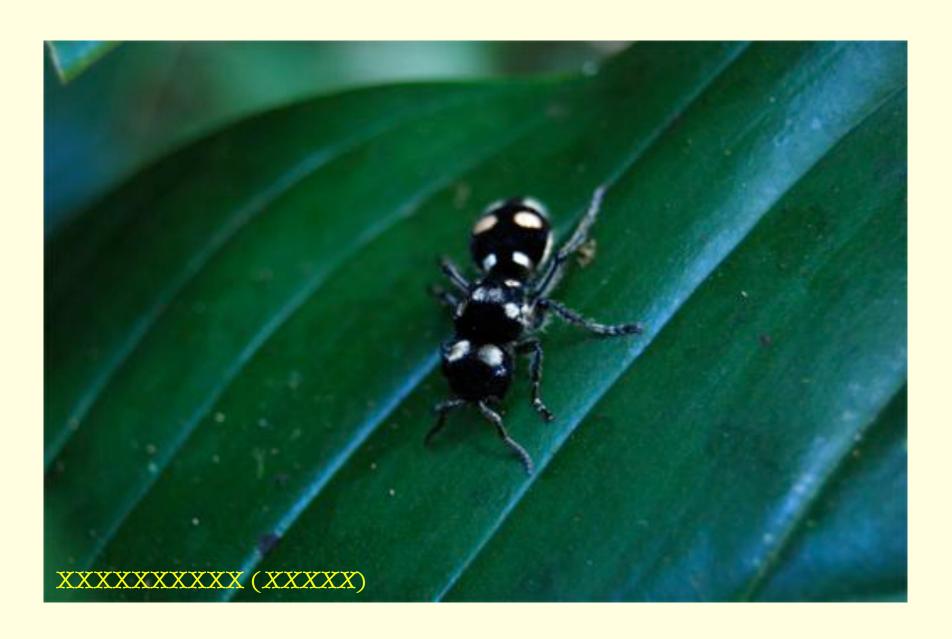
















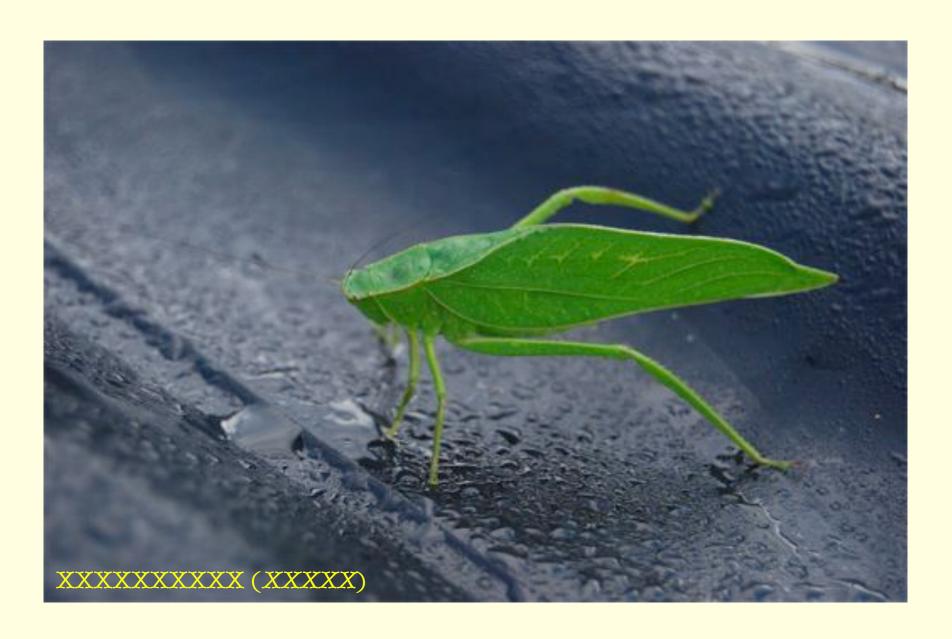






















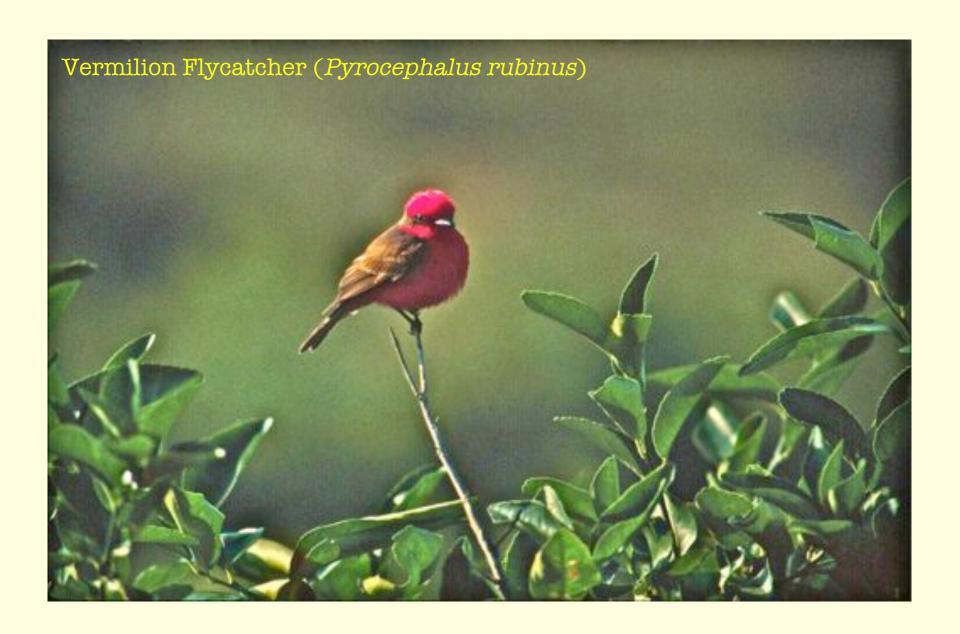




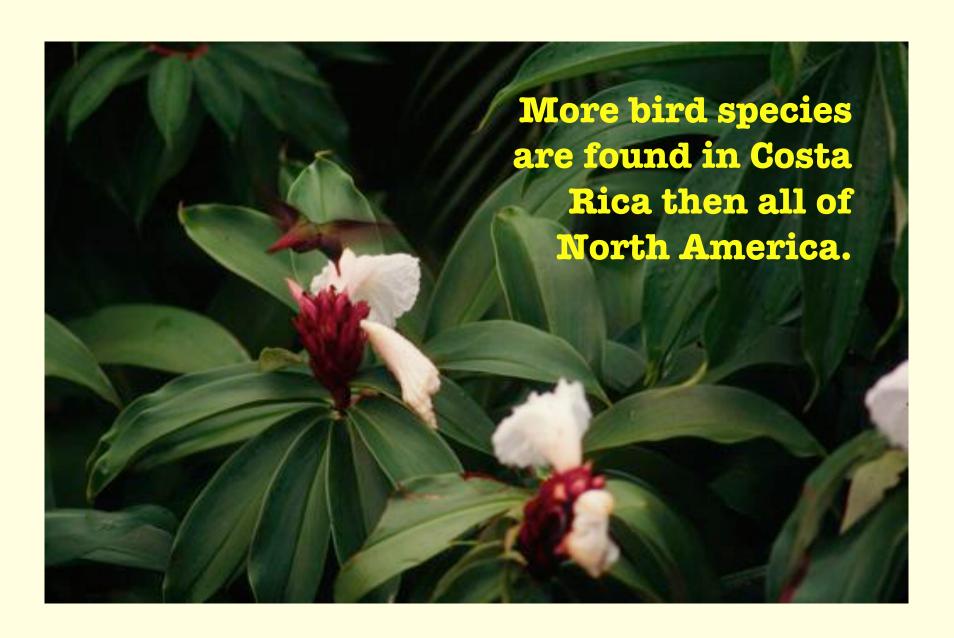




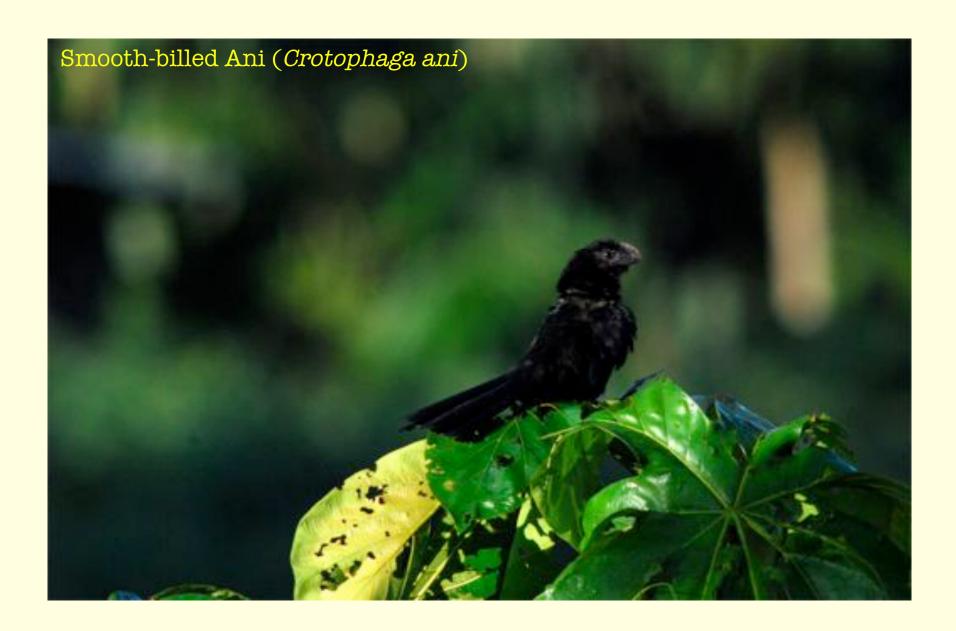


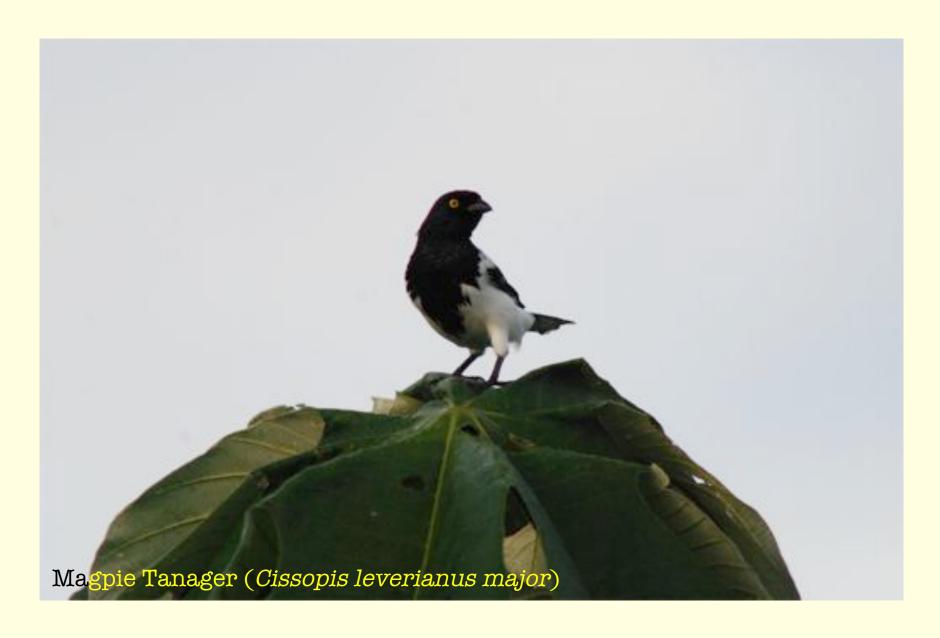








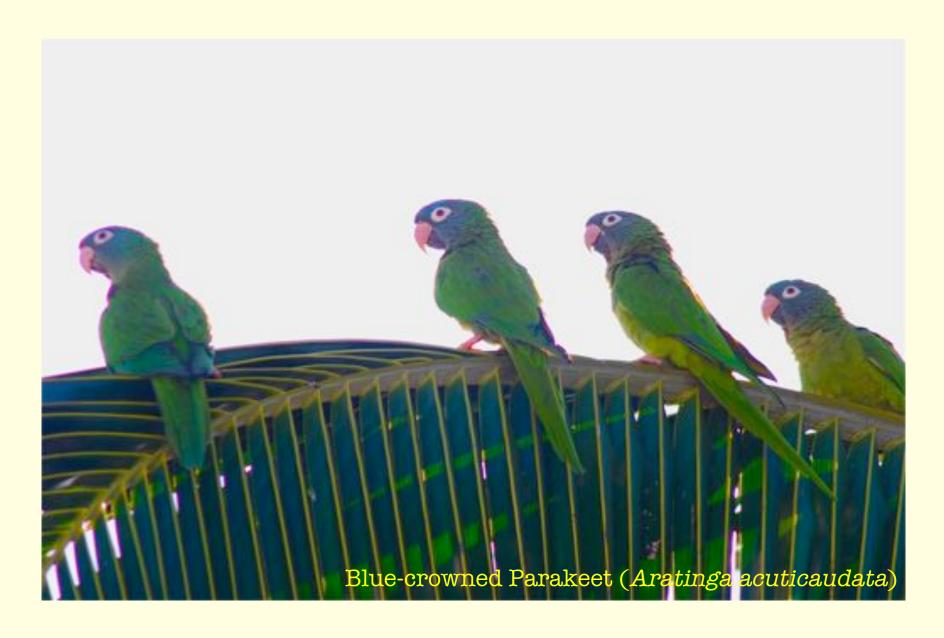


























Speaking of Mammals...













Scientists have found that areas of Amazon rainforest with no evidence of human habitation are rare.



Through the generations, indigenous people have learned to use the forest without destroying it.



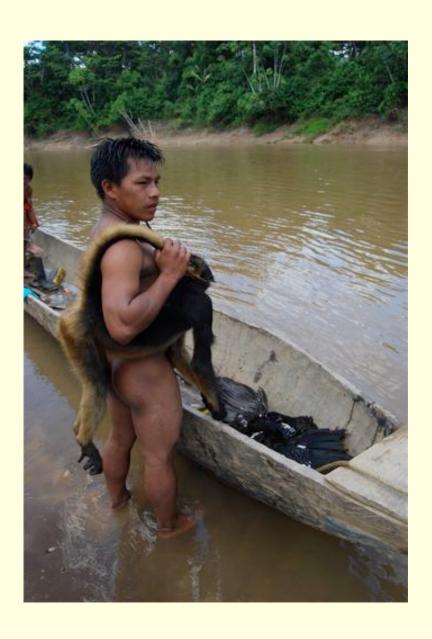












































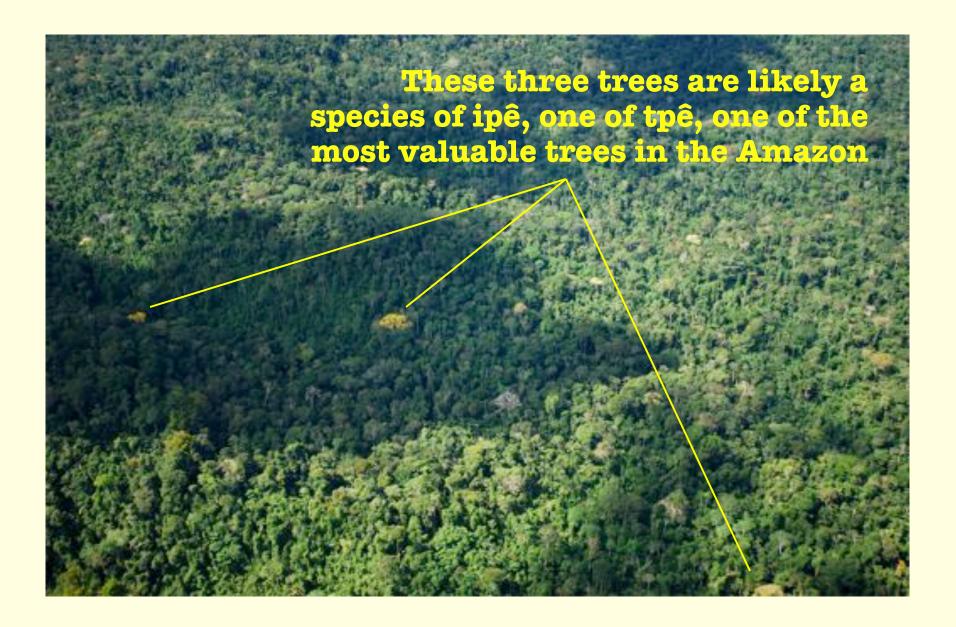


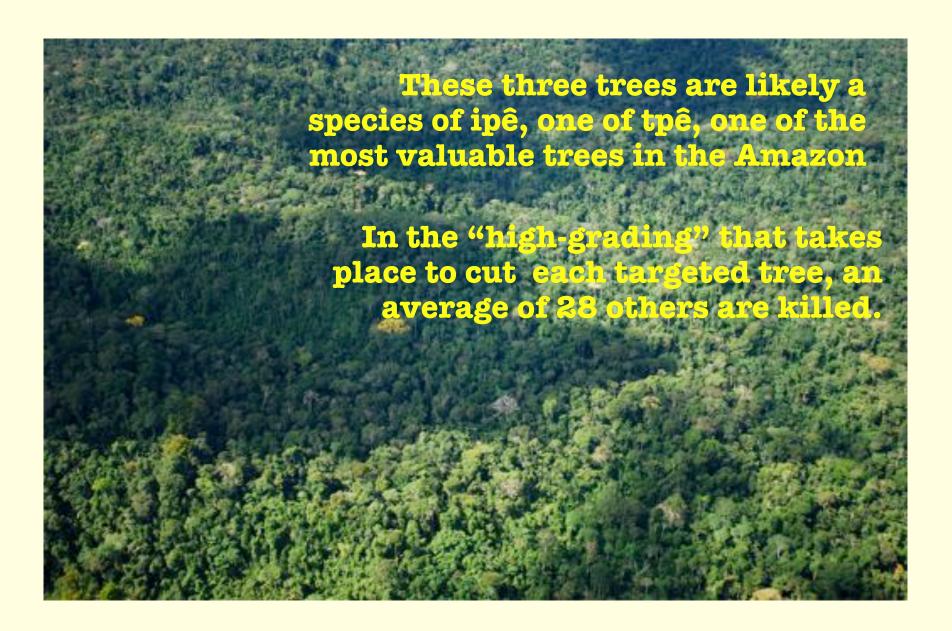


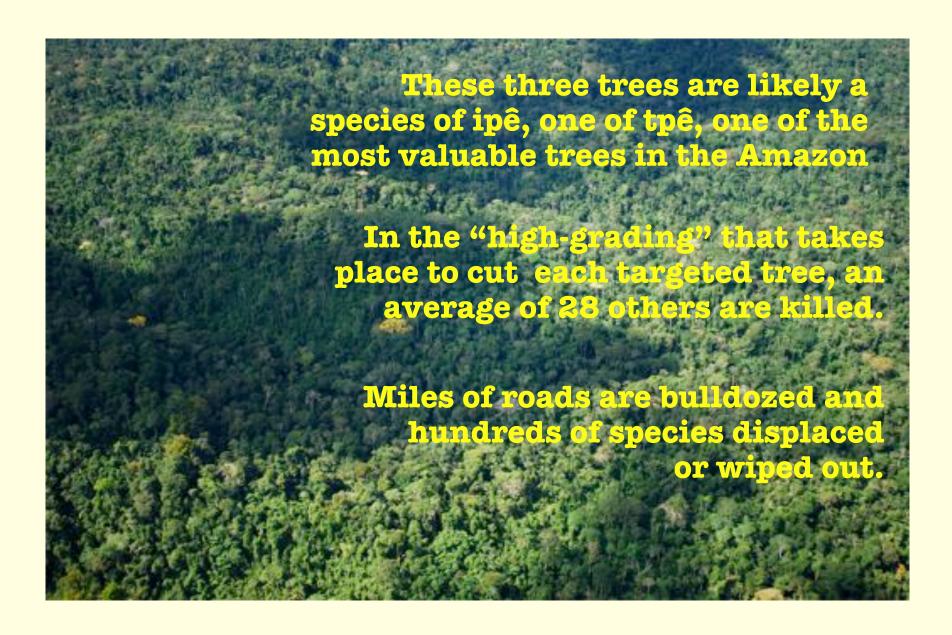


Only the largest and most valuable trees are sought by the first wave of loggers.







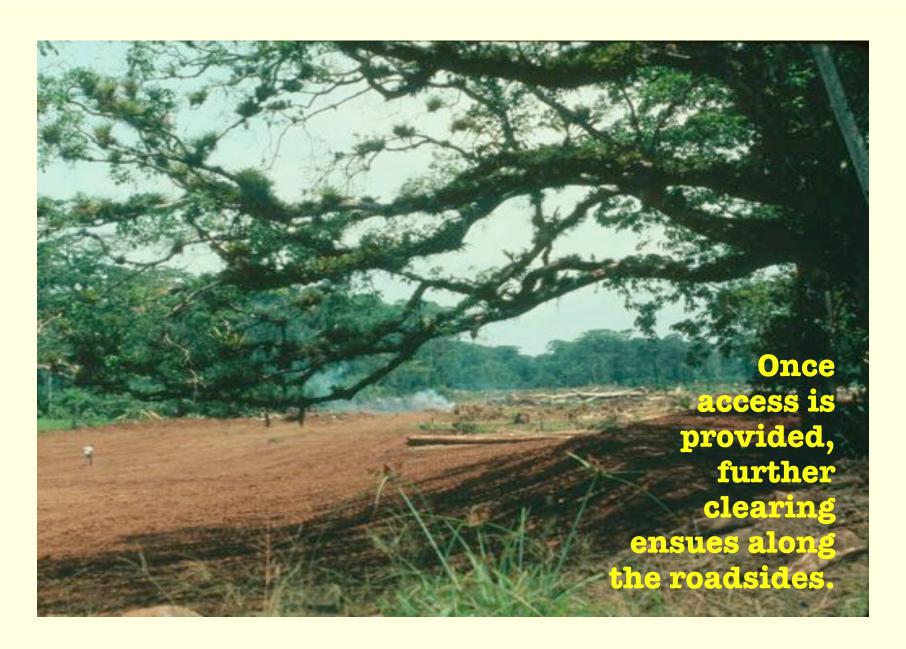




Logging roads are bulldozed — mostly illegally — into pristine forests by loggers who can afford the heavy machinery.

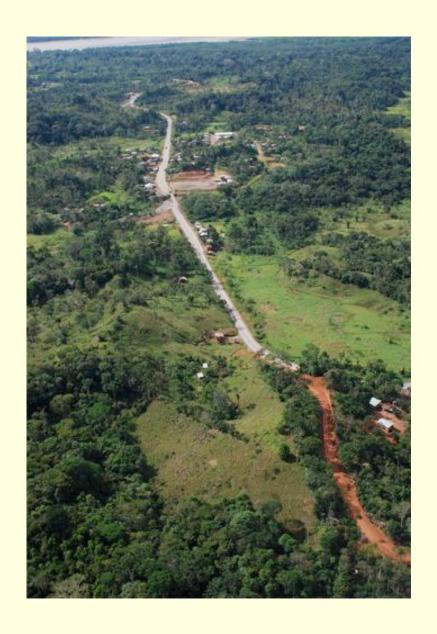
These lggers derive their income from producing mostly highvalue timber for export.

Logging by poor "campesinos" is largely a myth.









A closer view of a similar situation in Ecuador, where paved road follows dirt road, leading to even heavier development alongside and nearby.



Image by Robert Simmon, based on data from the Moderate Resolution Imaging Spectroradiometer and a NASA satellite image from Oct. 2005





Image by Robert Simmon, based on data from the Moderate Resolution Imaging Spectroradiometer and a NASA satellite image from Oct. 2005













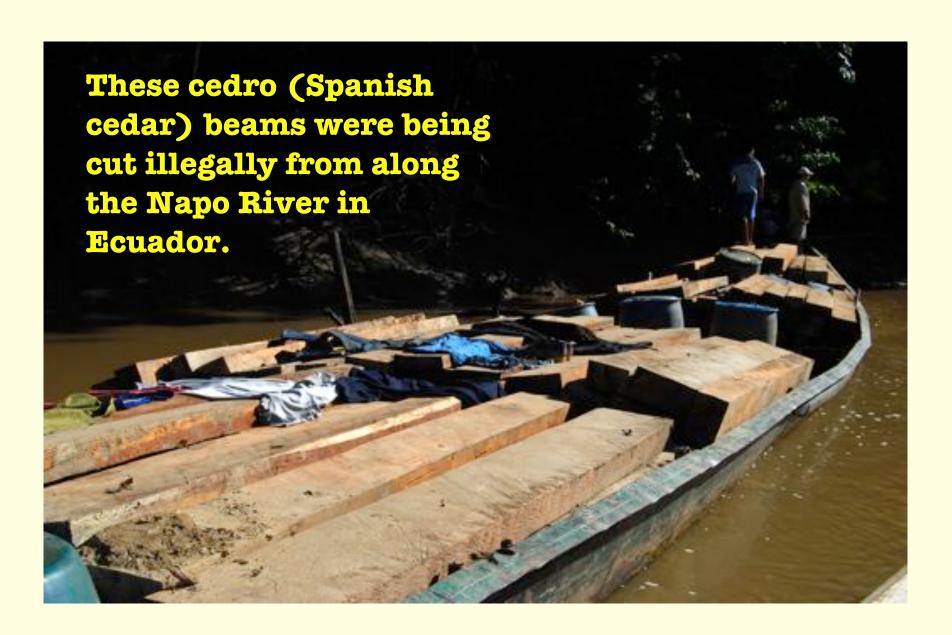


Graft is a major problem and accounts for a large percentage of illegal logging.

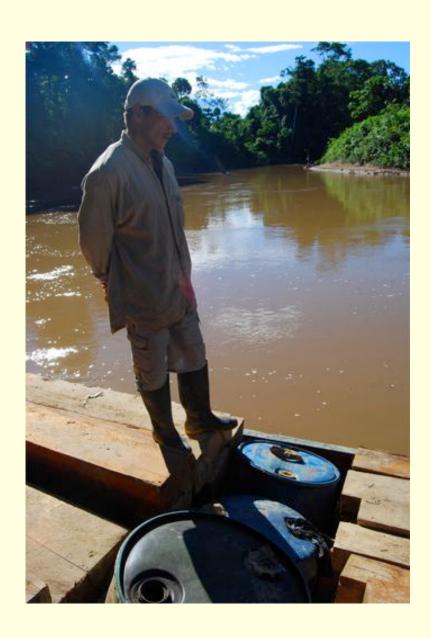
This mahogany tree had the mark of the Belize Forest Service stamped into the base ó showing that the company was allowed to cut it. Yet, according to Belizean forestry laws, it was too small to qualify.











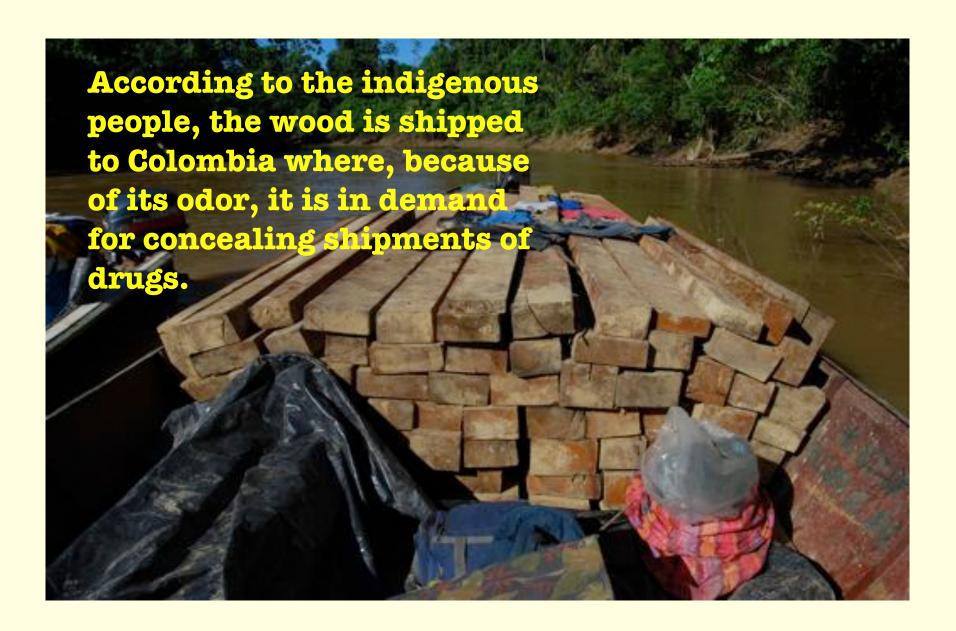




Photo © Greenpeace/Beltra



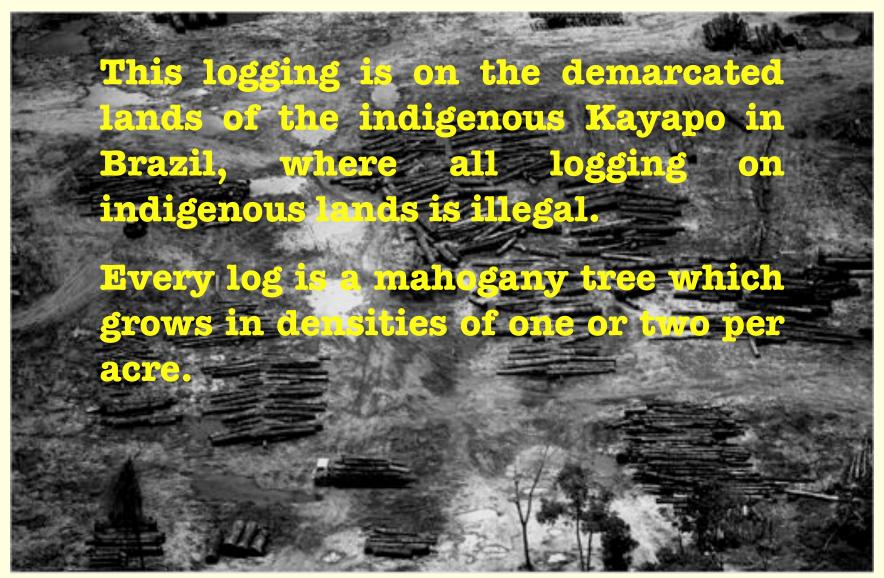


Photo © Greenpeace/Beltra

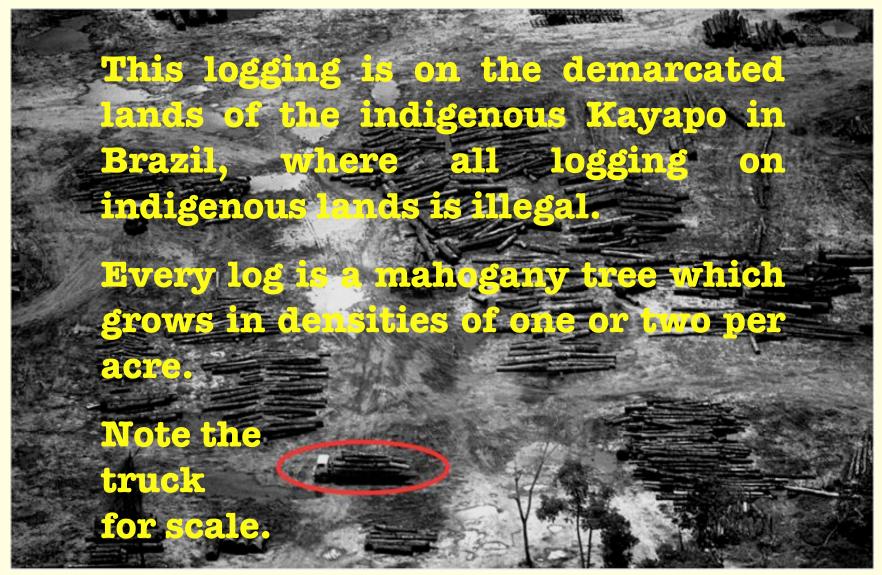


Photo © Greenpeace/Beltra

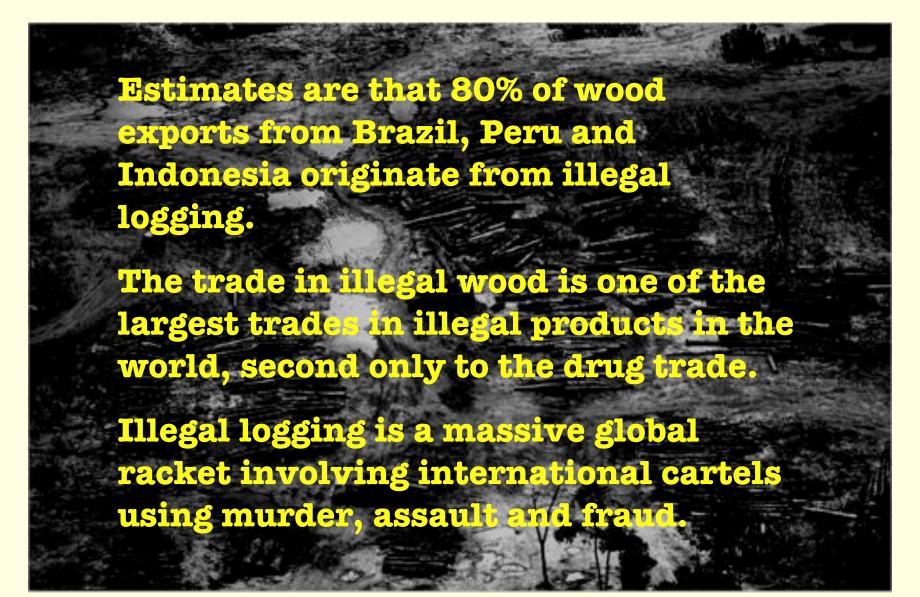


Photo © Greenpeace/Beltra













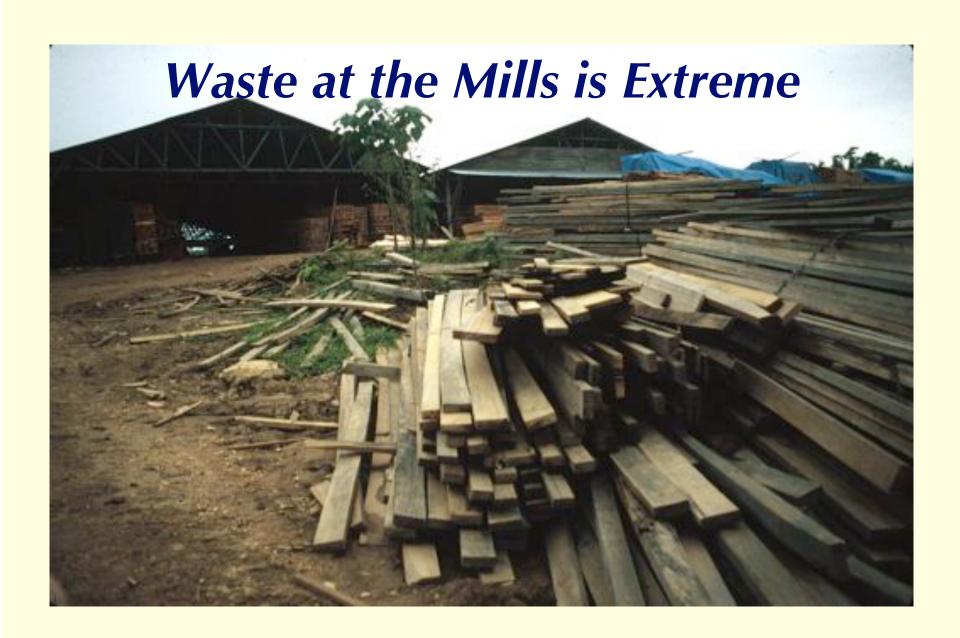


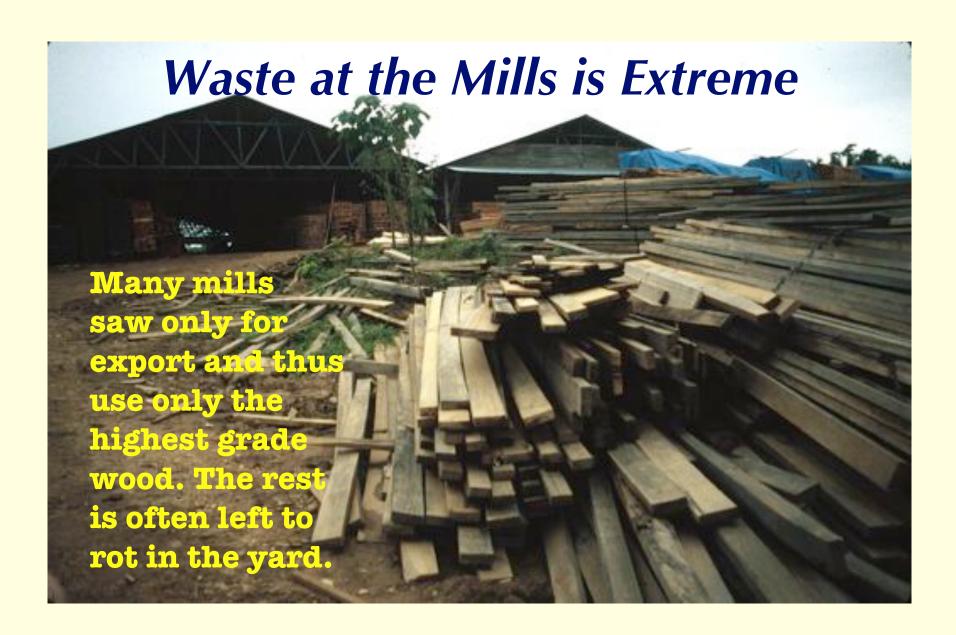


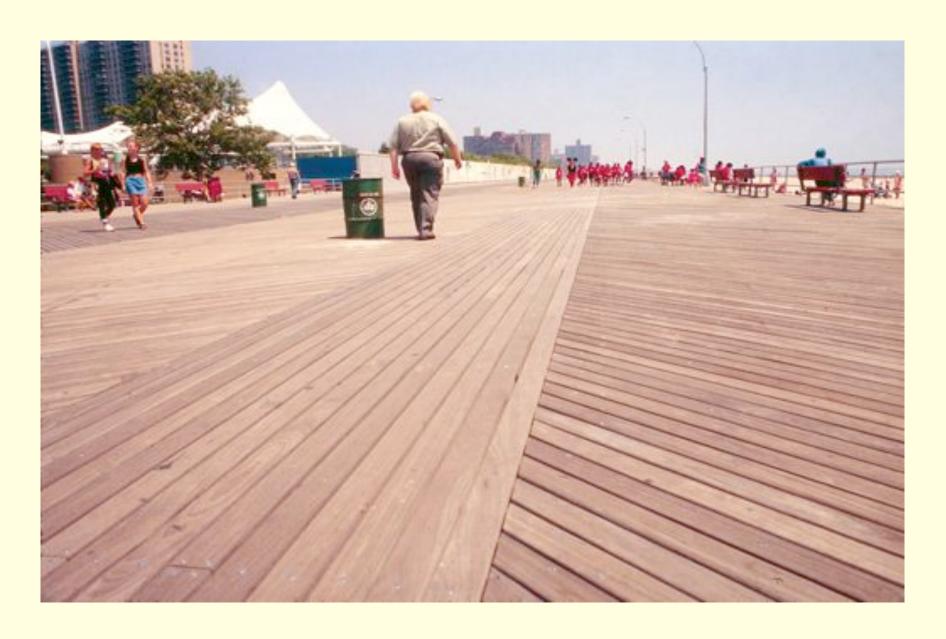


Once in the US, conspiracy and false advertising allow the timber to be marketed as legal—and often even as "sustainable".



























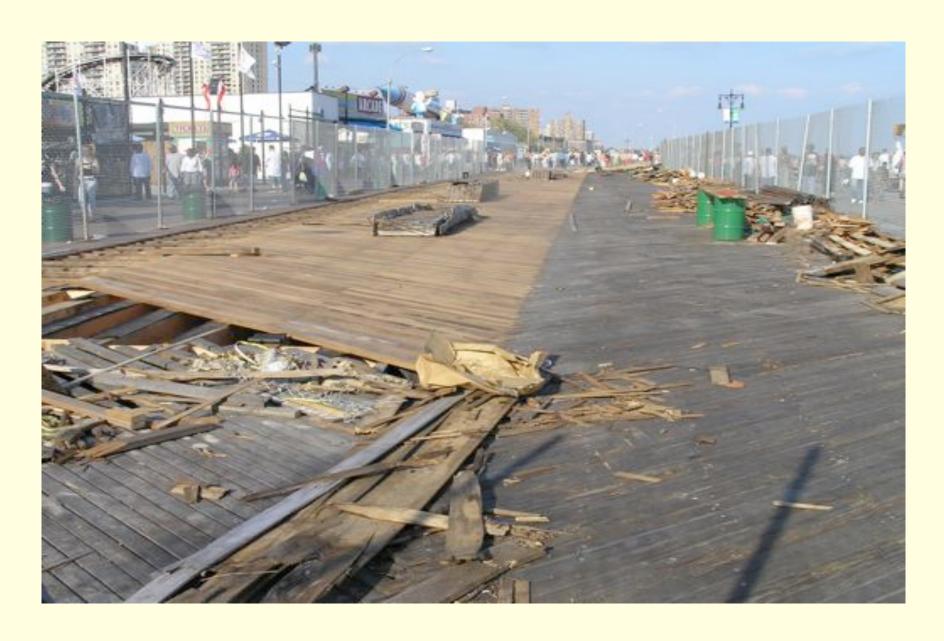


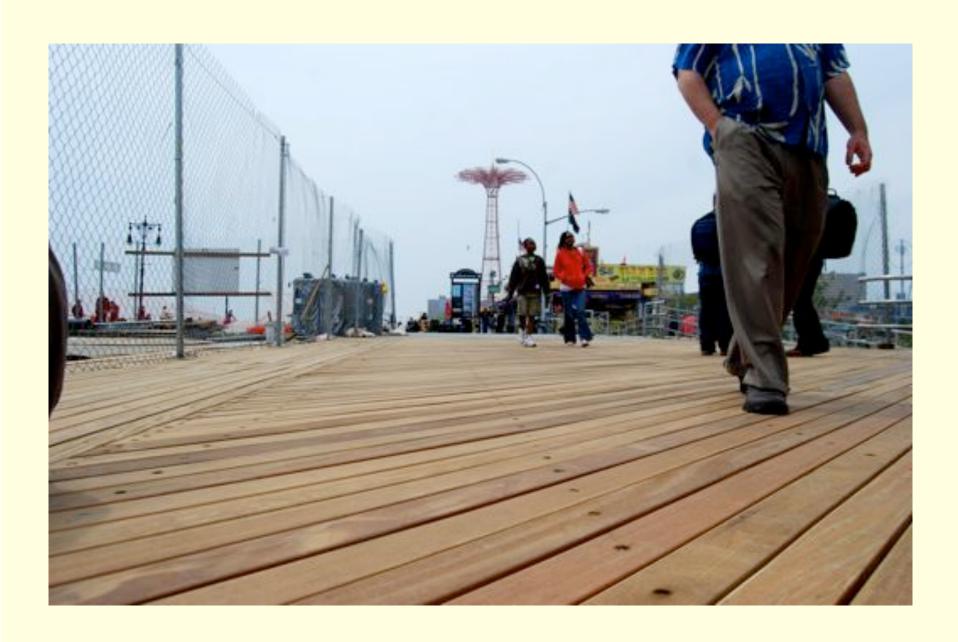
The wood from this package was exported by Bozovich, a Peruvian company often accused of illegal logging and invasion of indigenous lands.







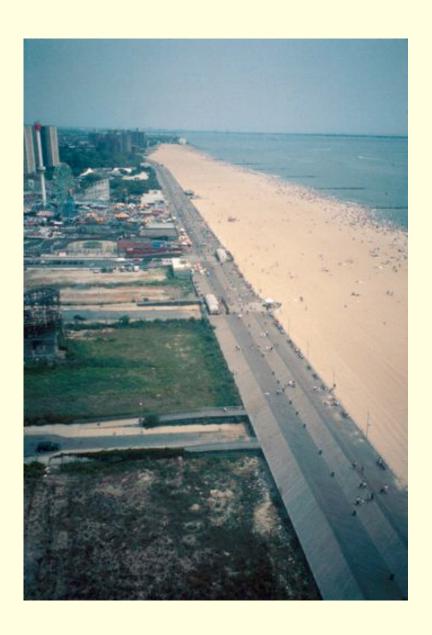






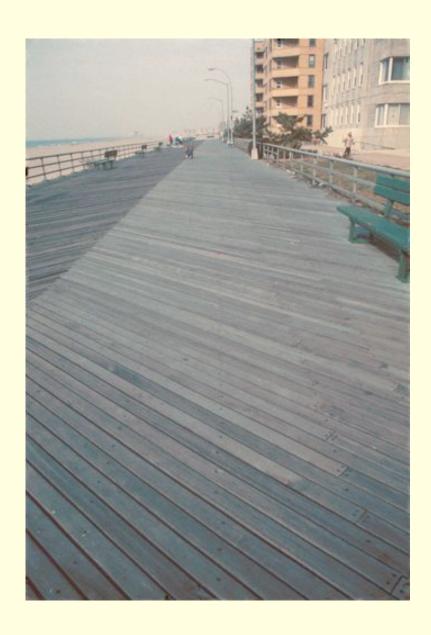






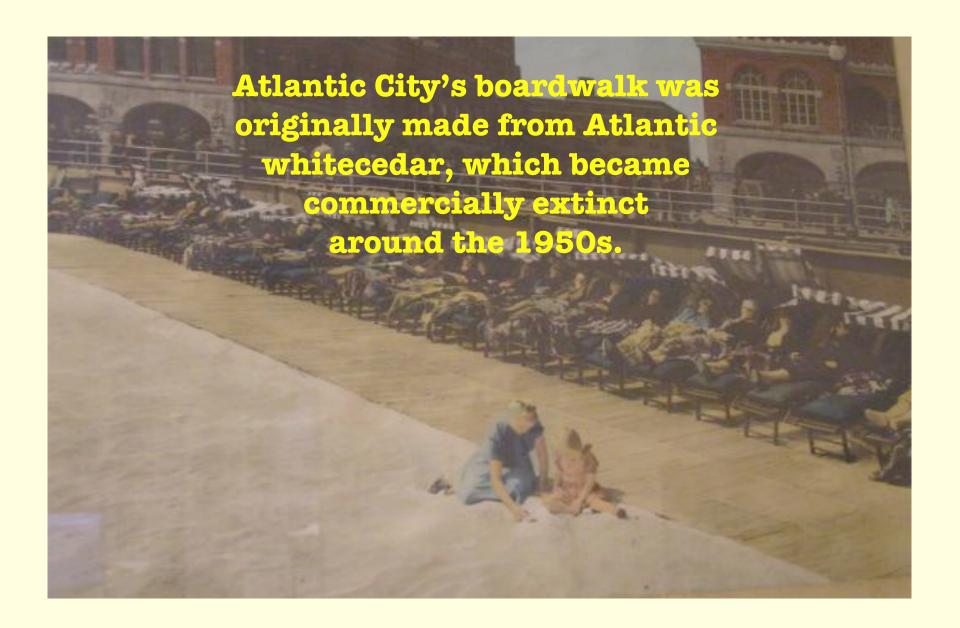




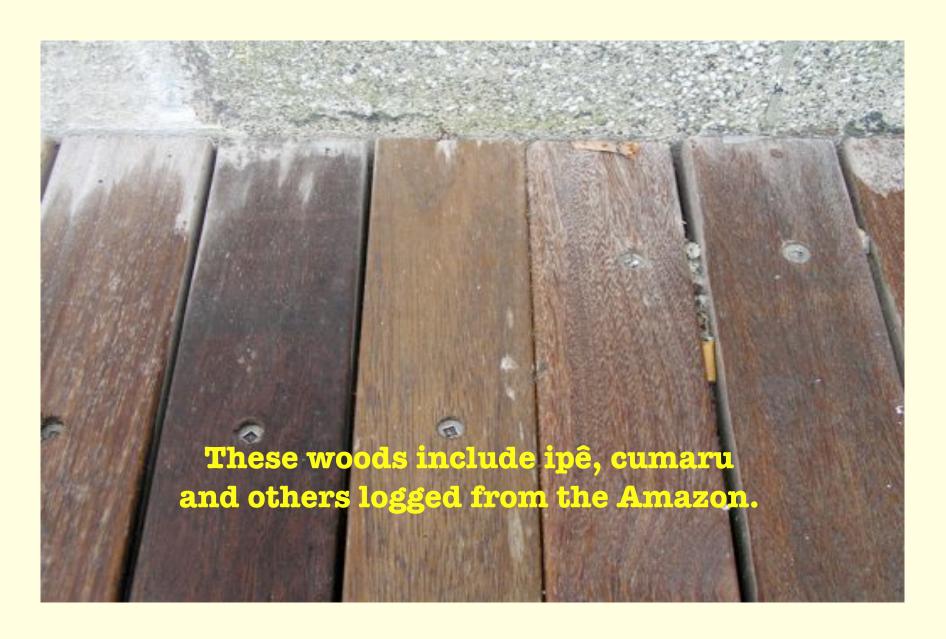


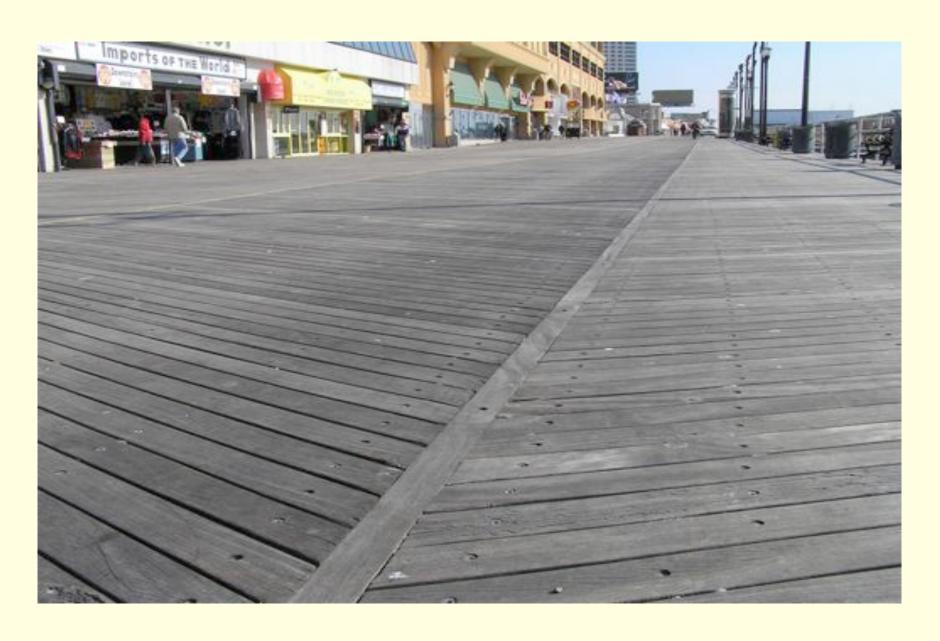


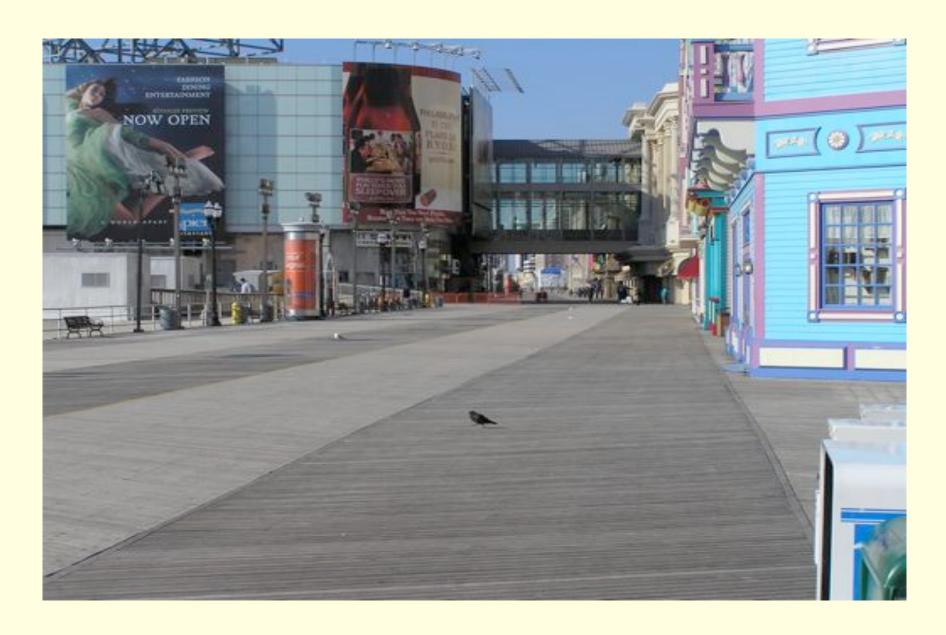


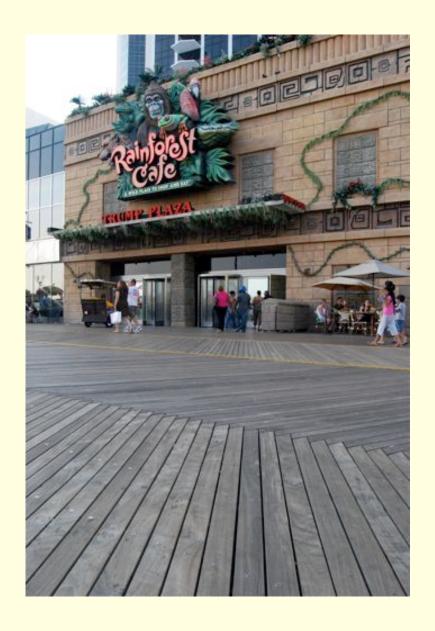












Atlantic City may
be the only place in
the world where a **Rainforest Cafe** is
sited atop a dead
rainforest.





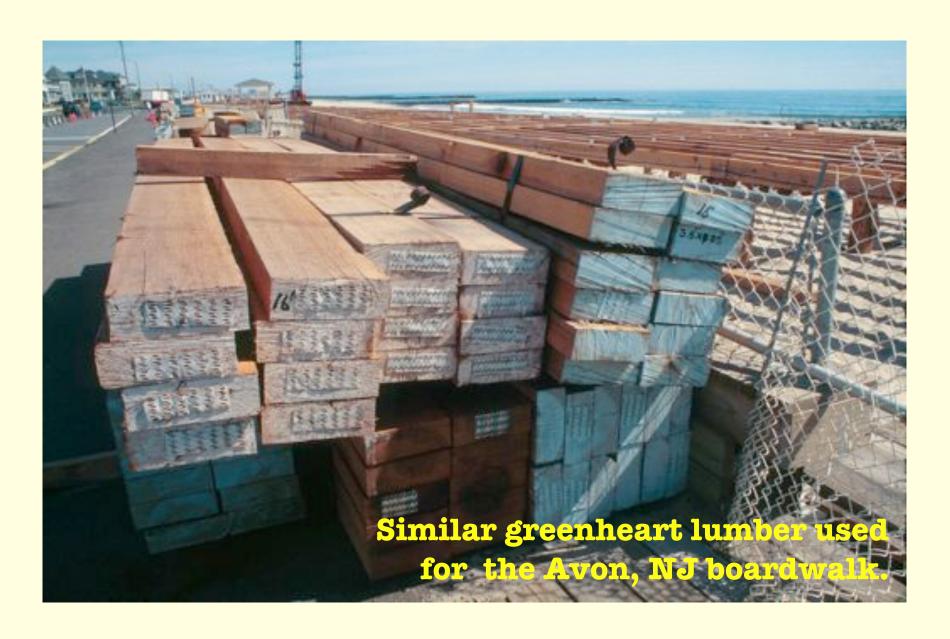
Since Atlantic City, now Avon, Wildwood, Ocean City, Ventnor and Asbury Park in NJ; Long Beach, CA and Long Beach, NY, Greenport, NY and dozens of other towns have used tropical hardwoods for their boardwalks.



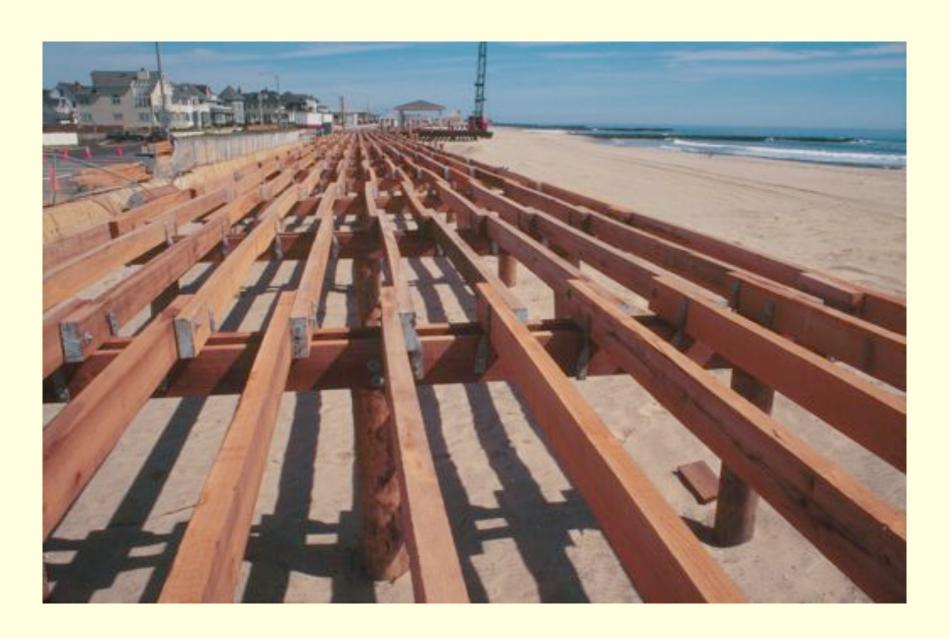


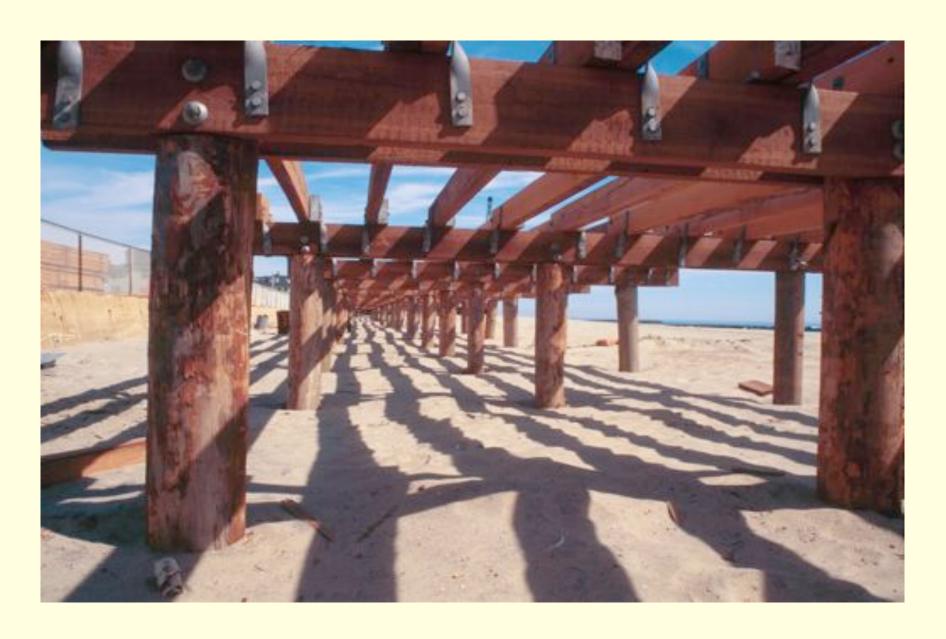
Ipê decking on the Avonby-the-Sea, NJ boardwalk.





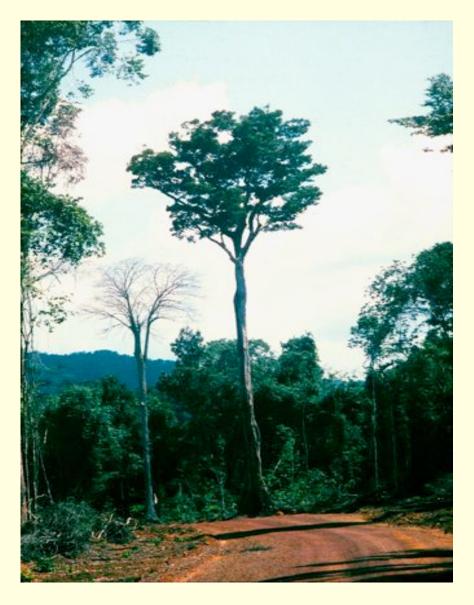








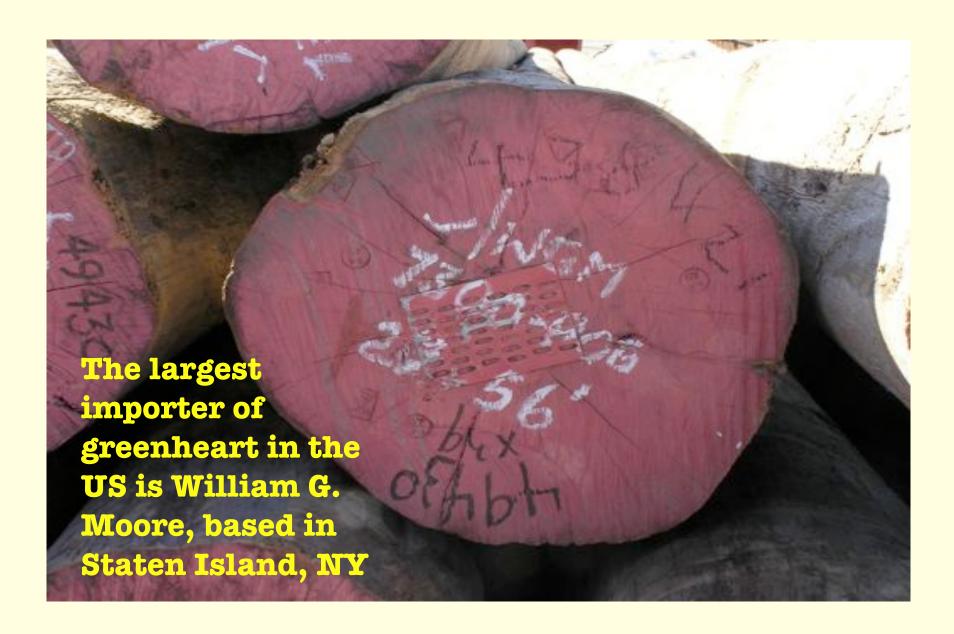




Greenheart is logged from the rainforests of Guyana. It is in such high demand that this single species makes up 70% of the country's export timber.

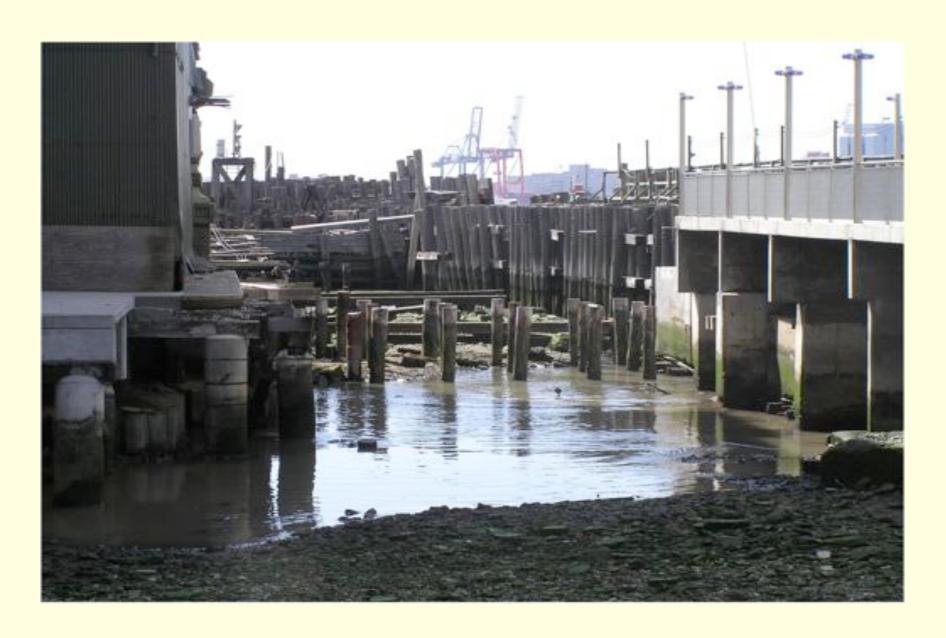


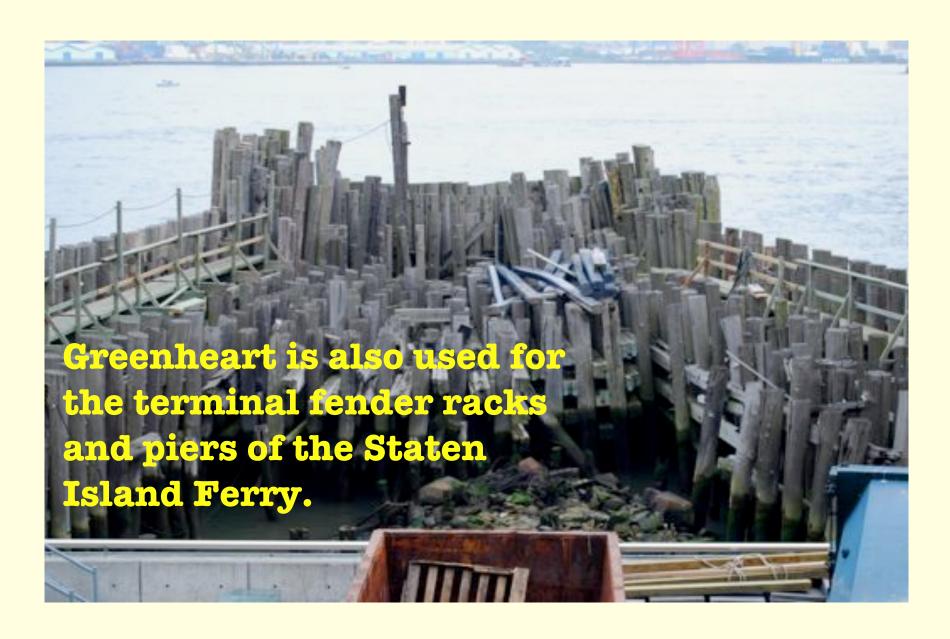




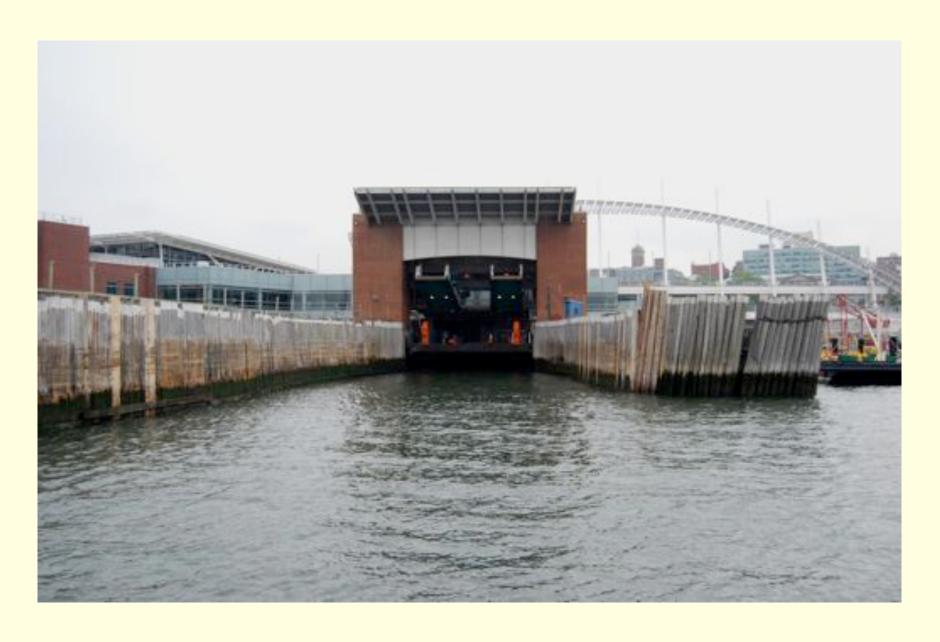




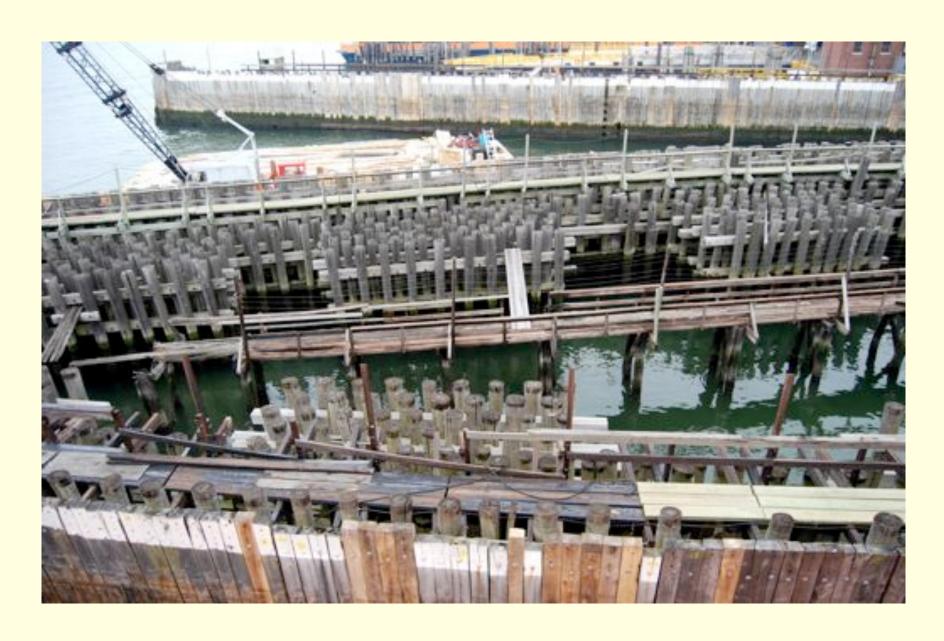


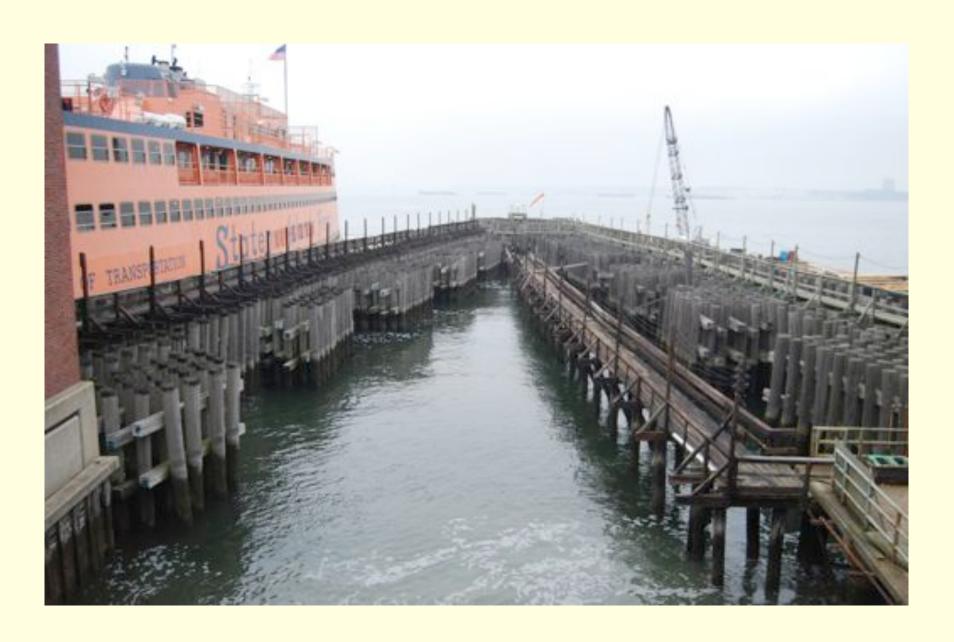








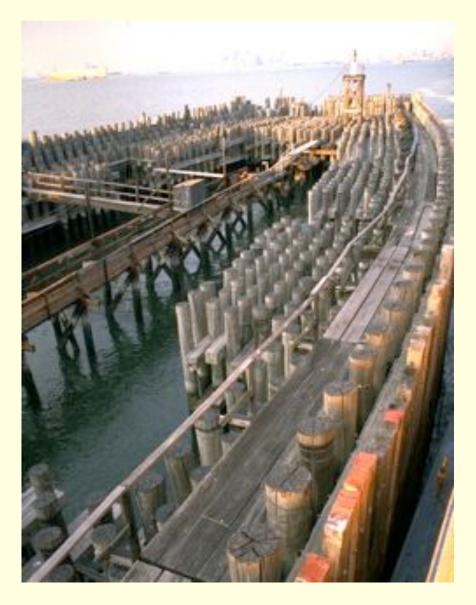






The Staten Island Ferry St. George Terminal (Staten Island side). There are ten (10) wooden terminal structures.

Detail of the fender rack structure marked "6" in the image on the left.



An estimated 1270 pilings are used in a full fender.



Every piling is a greenheart tree.















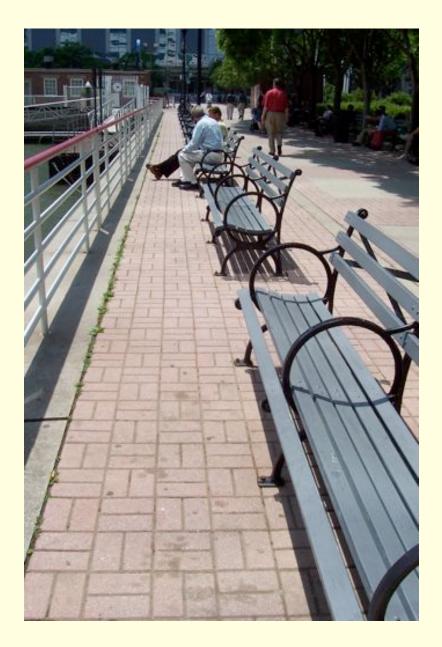














Outdoor benches may now comprise the single largest use of dimensional tropical hardwoods in the United States.

Ipê benches, Jersey City, NJ







Still more.



Ipê benches, Hoboken, NJ







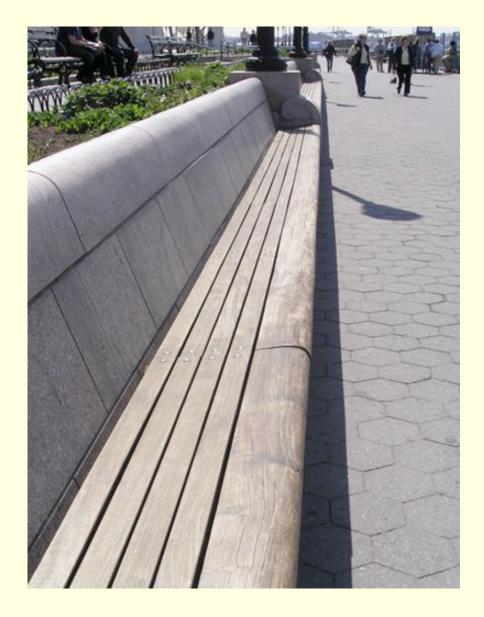




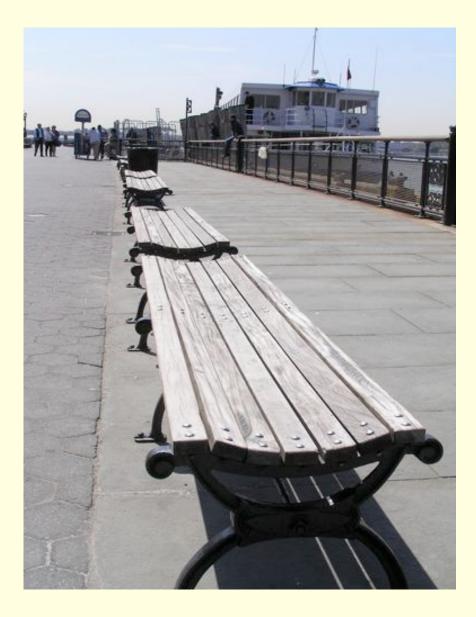


More ipê benches at The Battery.



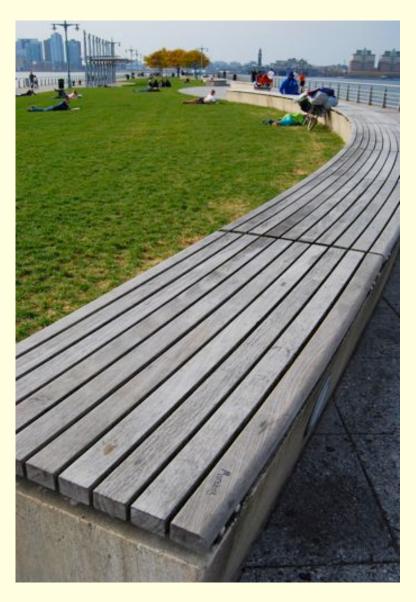


Still more ipê in The Battery...

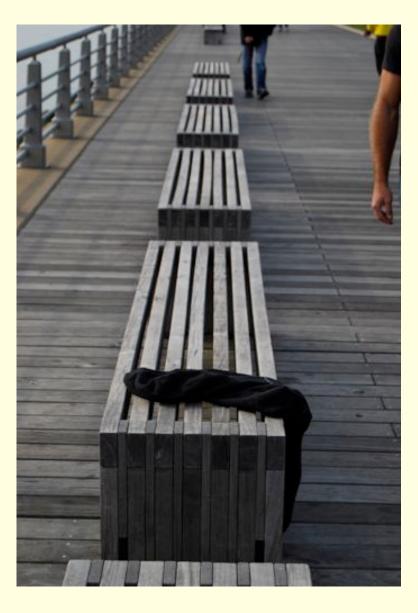


... and still more.





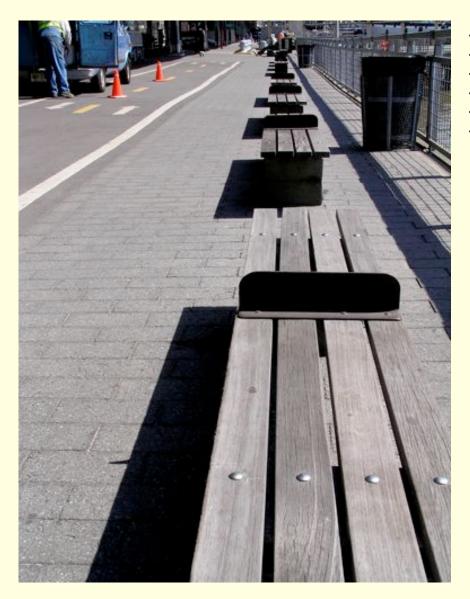
More ipê benches, Hudson River Park.



Still more.



Ipê bench, Battery Park City, NYC.



Ipê benches, East River Park, NYC.



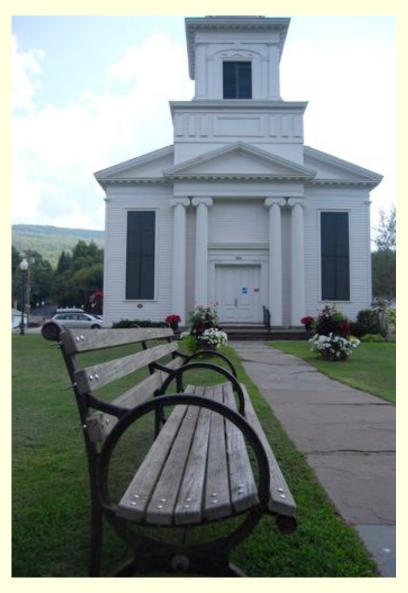
Ipê benches, Stuyvesant Cove Park, NYC.







... and more still.



Ipê bench, Windham, NY





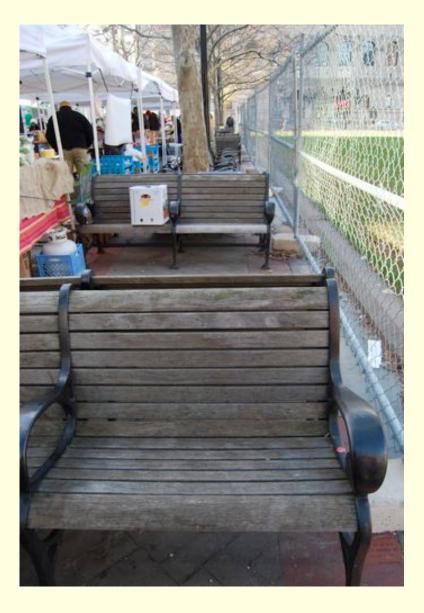




Ekki benches, South Street Seaport, NYC

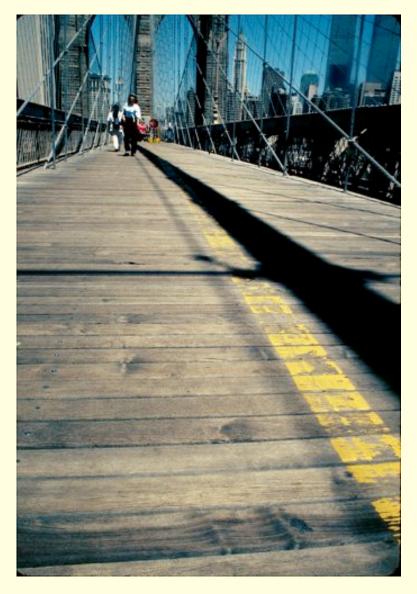


Ipê benches, Massachusetts statehouse

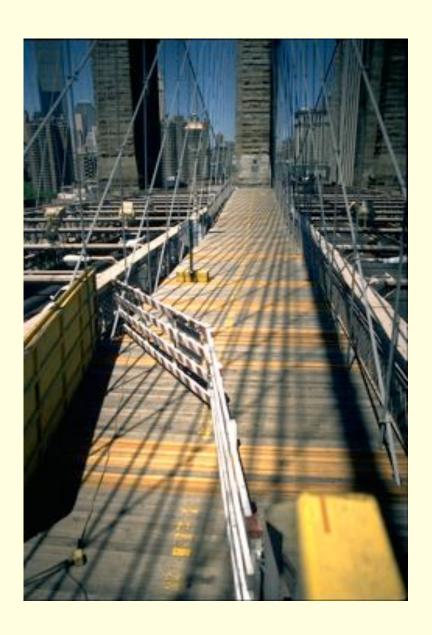


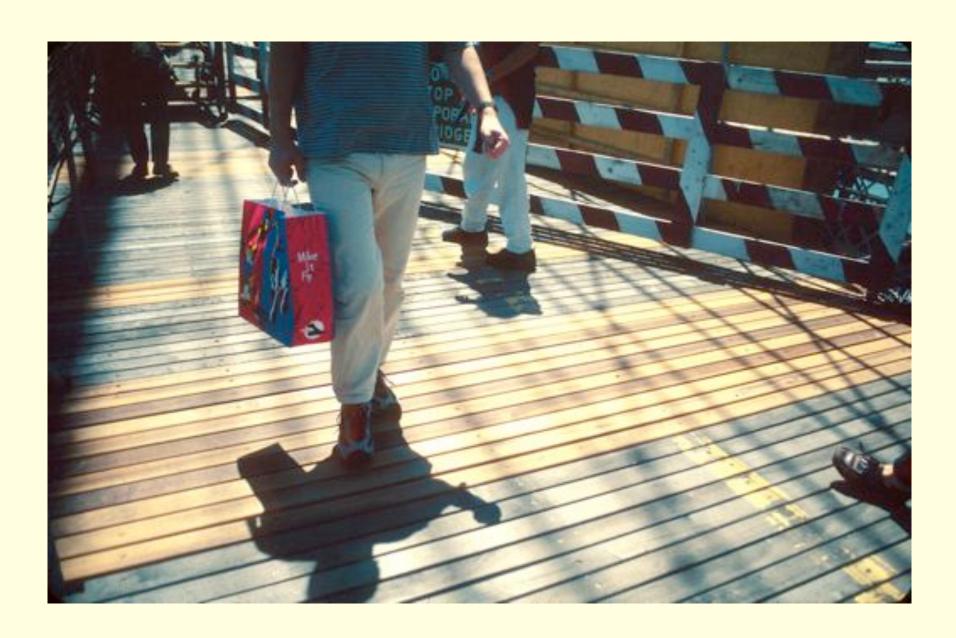
Ipê benches, Boston Commons





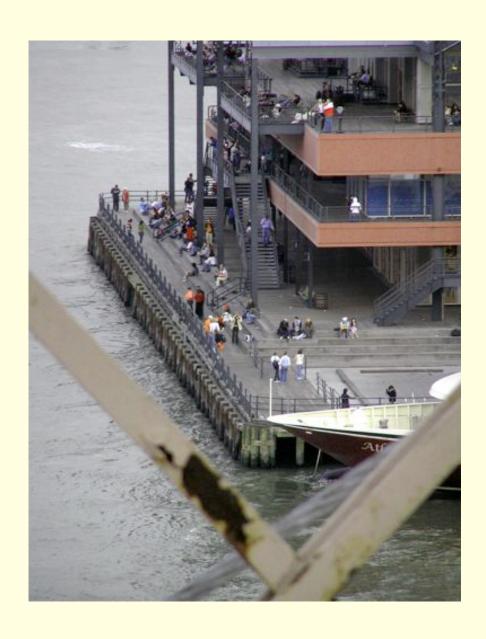
Greenheart is also used for the decking and benches of the Brooklyn Bridge Promenade...







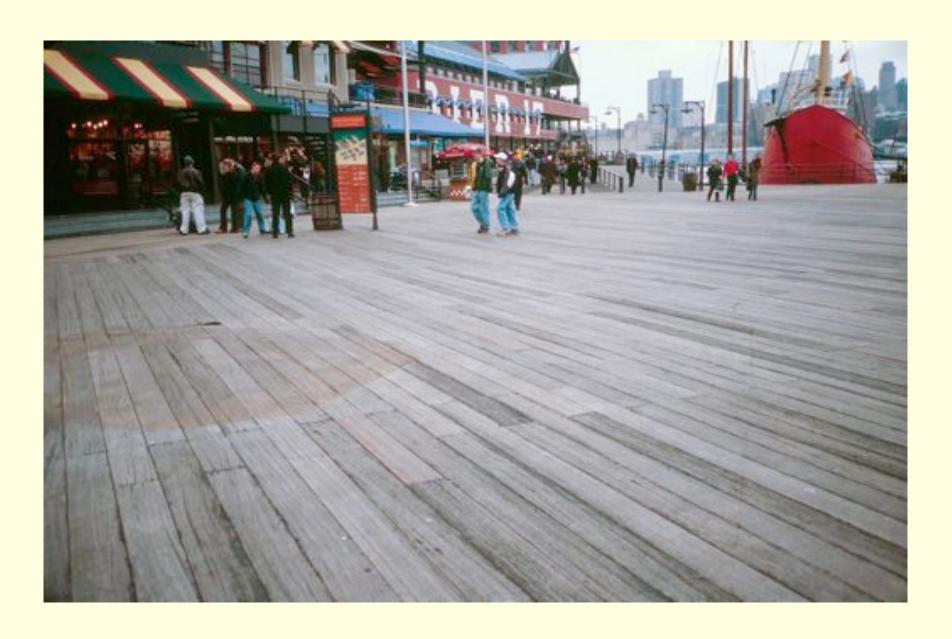


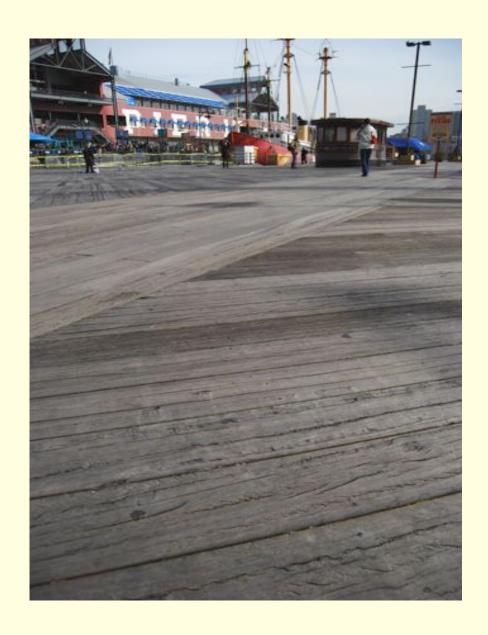


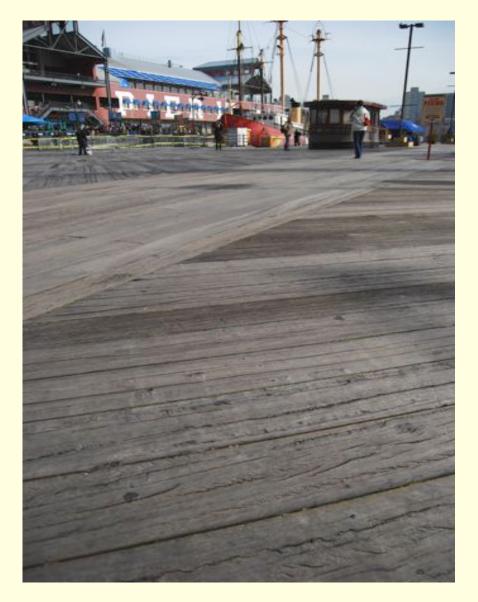












Ekki is logged from the rainforests of West Africa.





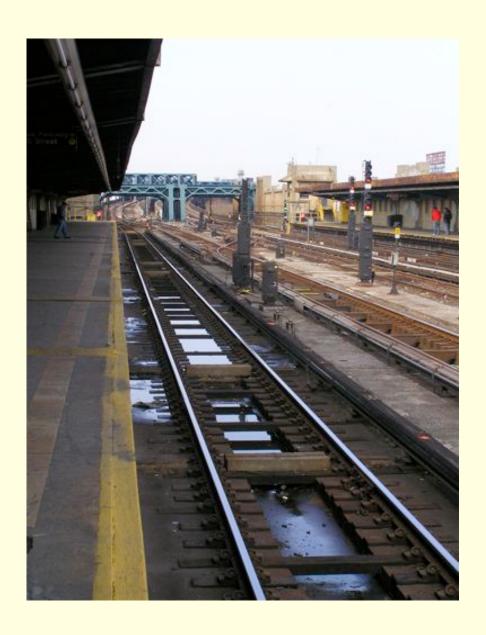




The newer subway track ties installed by MTA/NYC Transit are also ekki.

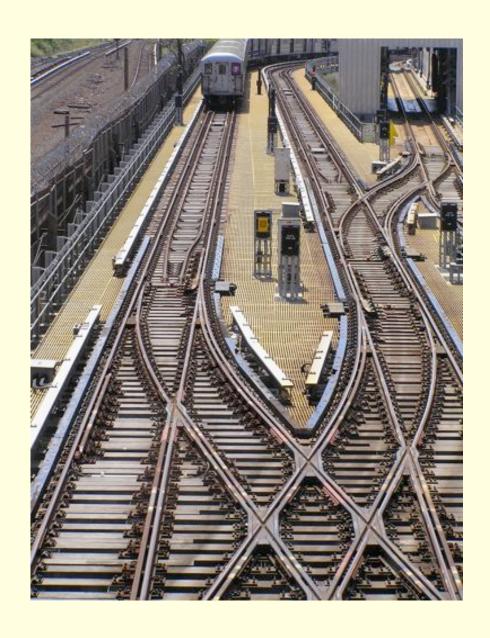
In 2001, Rainforest
Relief found that
NYCTA was buying ekki
originating in Liberia,
and was thus buying
'conflict timber',
supporting arms
purchases by Charles
Taylor, Liberia's former
president.







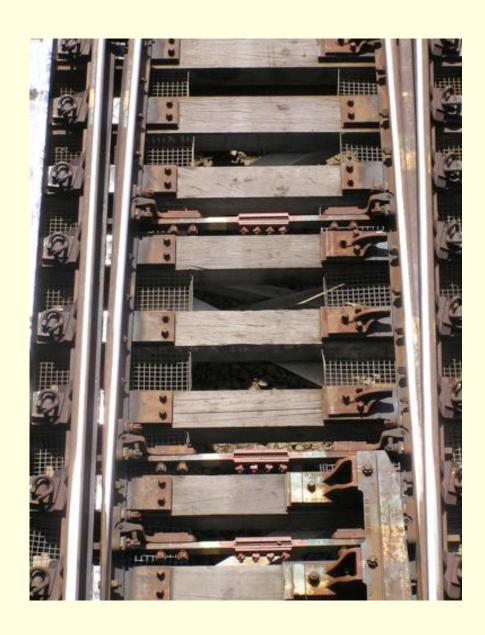


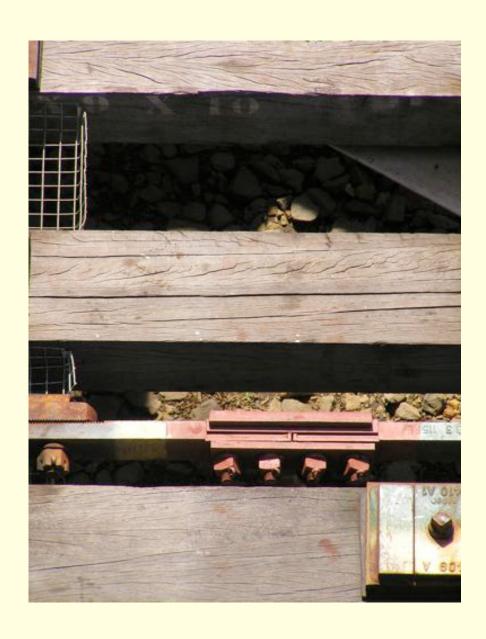






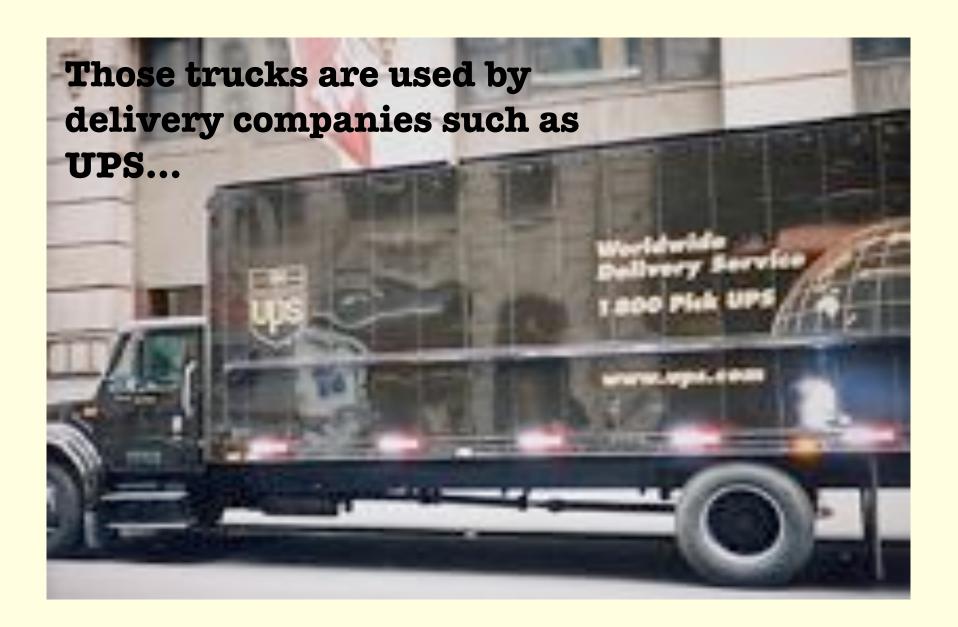




























... this one in Ft. Lee, NJ...



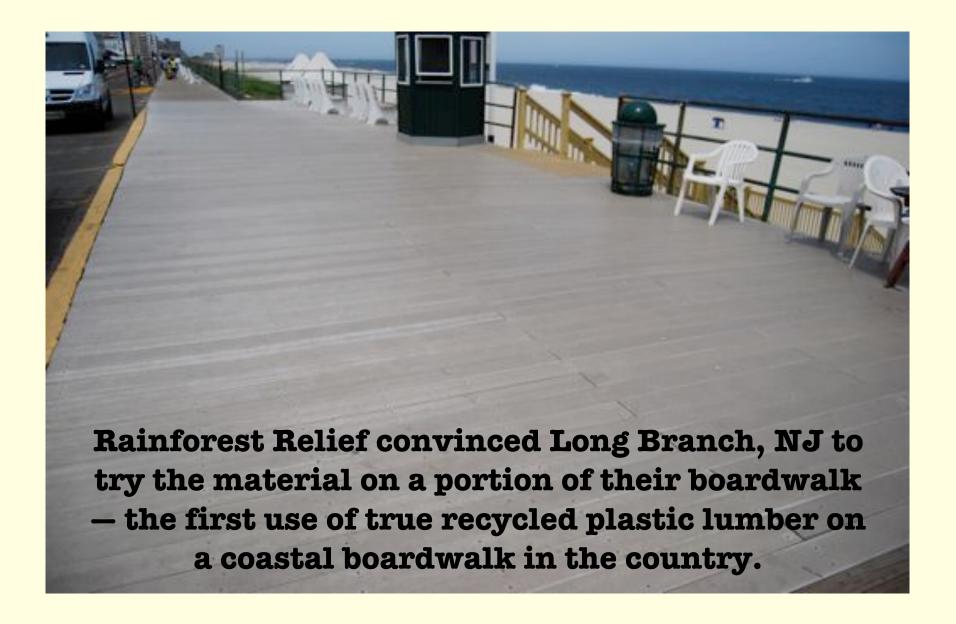
... this one in Port Washington, NY...

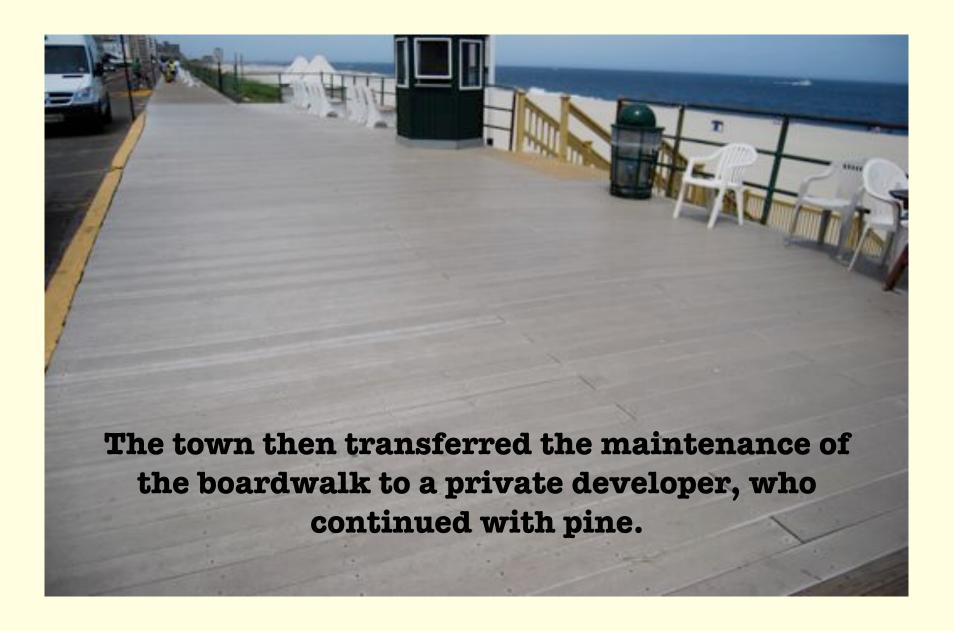




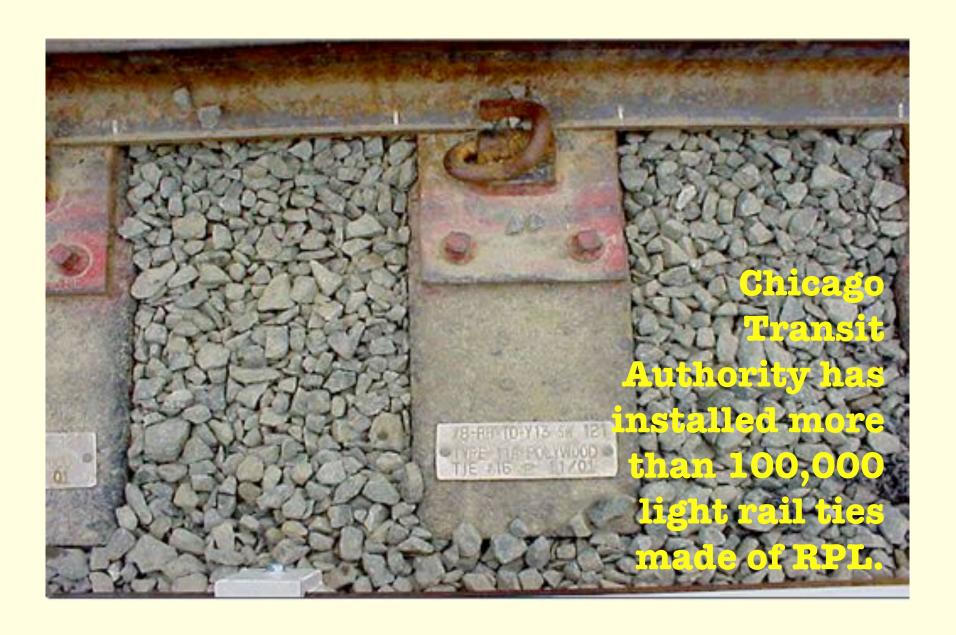


Recycled plastic lumber (RPL) is estimated to last more than 100 years. The use of this high-tech material creates jobs in the local economy, reduces waste being sent to landfills, sequesters carbon, offsets logging of tropical and temperate forests up to 20 times – and RPL can be recycled after its useful life.





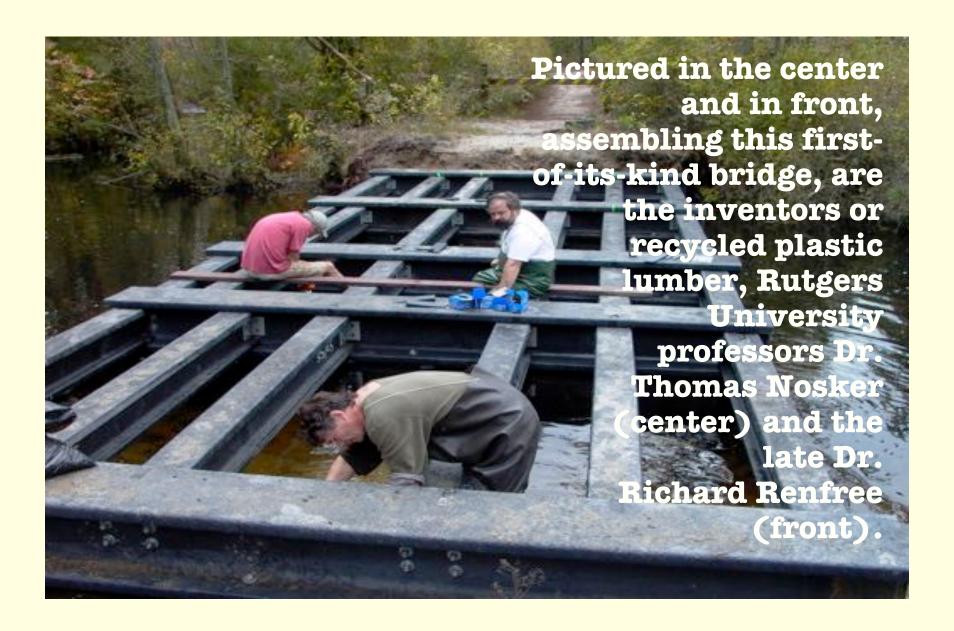


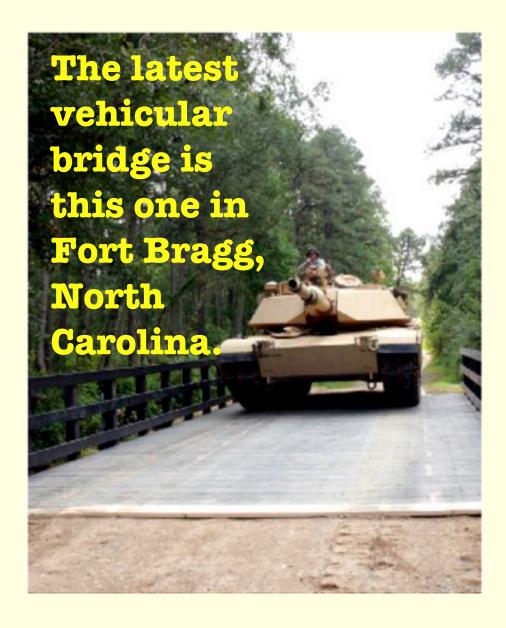


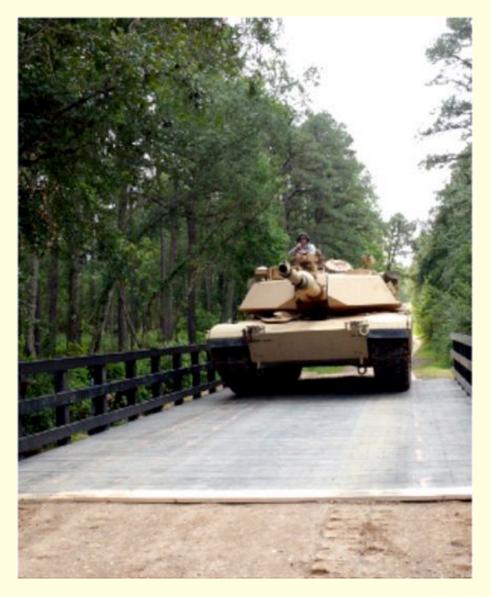












On June 11, 2009, a 71-ton Abrams M-1 tank safely crossed this newly built bridge, which is made from approximately 85,000 pounds of recycled plastics.



Another excellent alternative is domestic black locust (Robinia pseudoacacia).



This black locust bench was placed outside NYC Parks' Olmstead Center in Queens in 2007.





Black locust, originally found in two small pockets in the Ozarks, has been naturalized in much of the US. In the early 1600s, realizing the incredible durability of this wood, farmers began planting the tree on their farms to use for fenceposts. The wood lasted 70 - 90 years or longer in the ground without treatment of any kind.

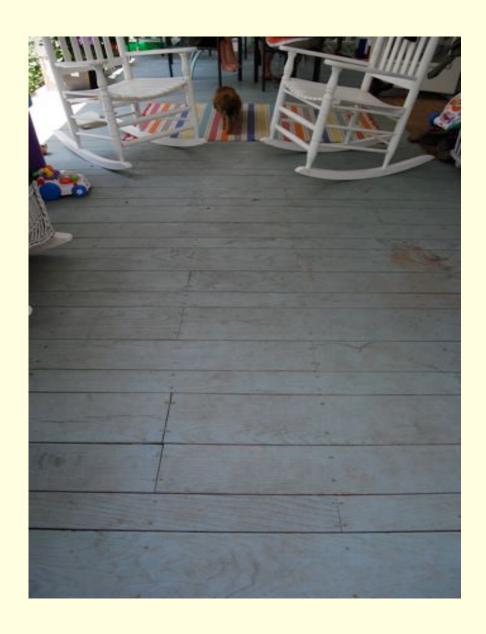
Also in the 1600s, black locust was brought to Europe and established in plantations. Today, thousands of acres are under cultivation in Croatia, Hungary and other countries. Black locust — called Robinia in Europe — is popular for fencing, flooring, tool handles and other uses. The largest areas of black locust plantations are now in Korea.

Indeed, black locust can be considered North America's 'teak', yet, since the 1940's, it has been largely overlooked 'at home' for use in durable outdoor structures. Rainforest Relief has been promoting this wood as an alternative to tropical hardwoods since 2003.

Due to our efforts there has been a resurgence in awareness of black locust.





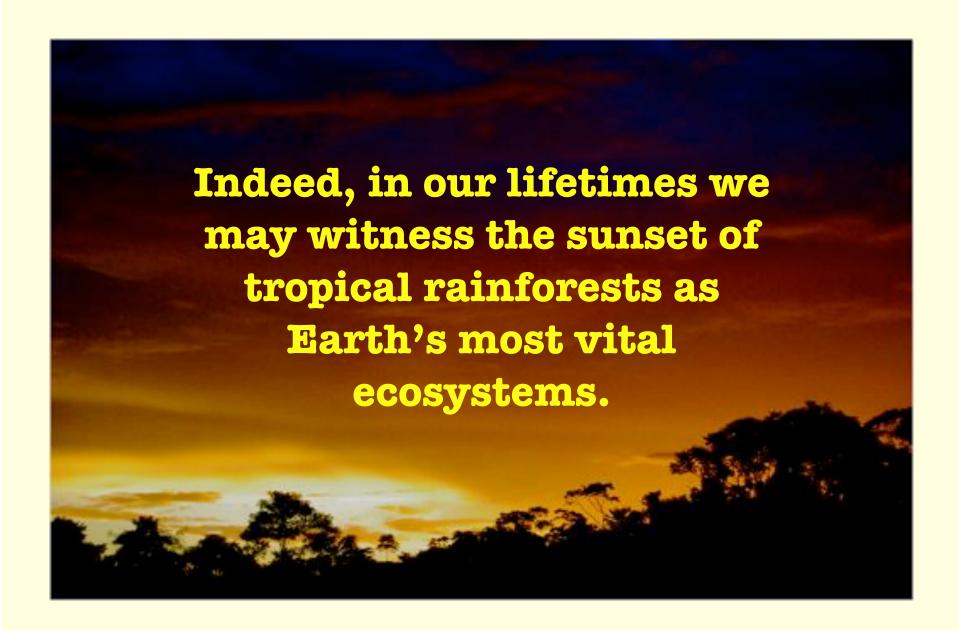




When it comes to life on Earth, the decisions we make about what we use and what we avoid — especially when they involve wood logged from old-growth rainforests — are the most important decisions we will ever make.

At the current rate of destruction, estimates are that all accessible rainforests will be degraded or destroyed by 2035.



















The real world — the biological world that, as a whole, *is* our Mother Earth, is watching...



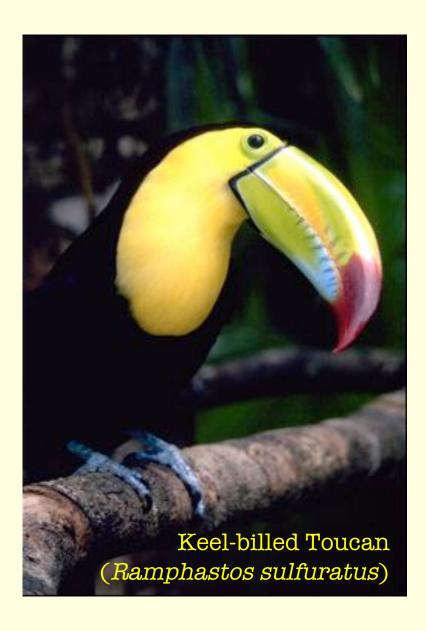




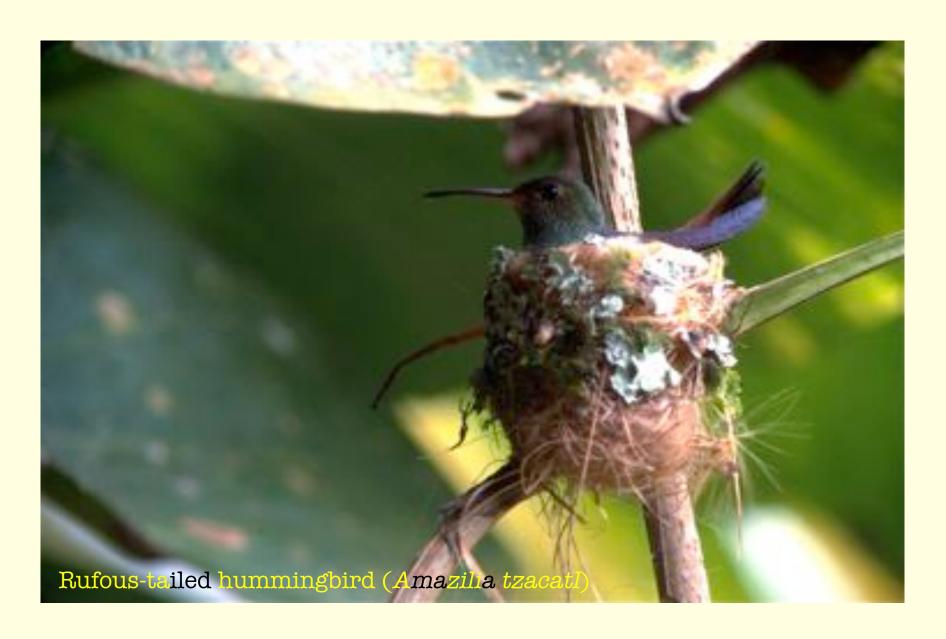




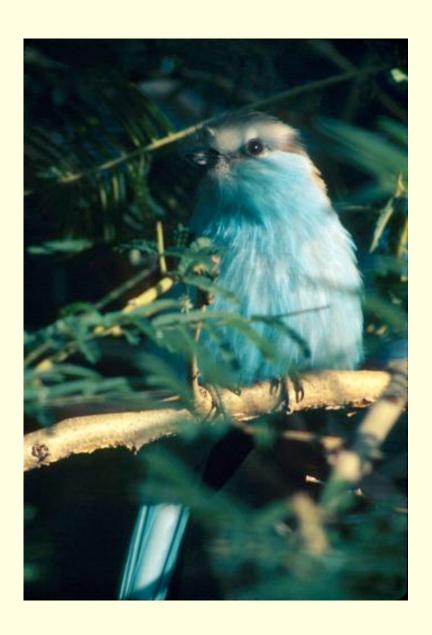




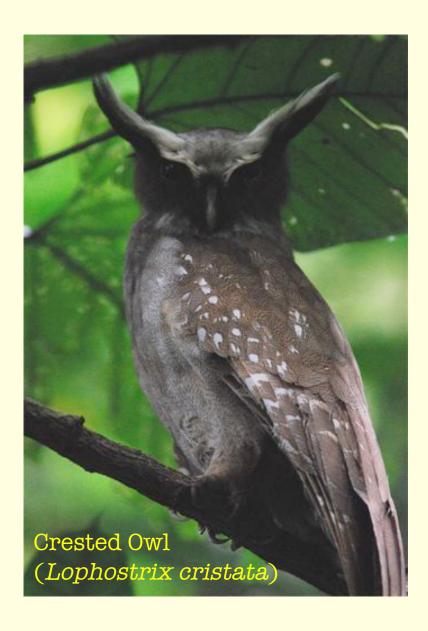








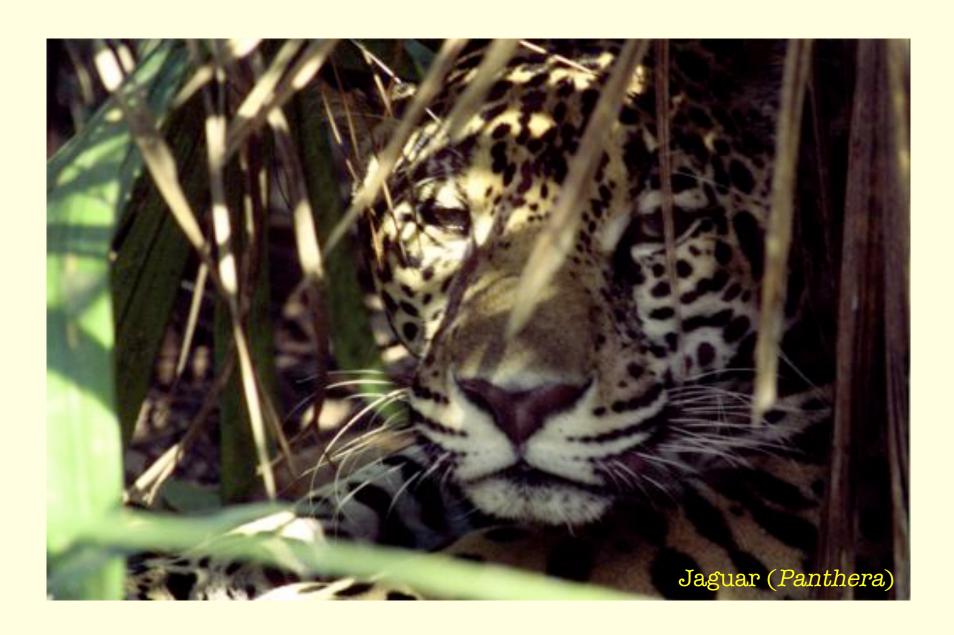




















For more information about rainforests, tropical wood or temperate rainforest wood or wood alternatives, call or email Rainforest Relief Info@rainforestrelief.org

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