

# **Submission to the Senate Rural Affairs and Transport Legislation Committee**

## **Illegal Logging Prohibition Bill 2011**

22 December 2011

## Purpose of this submission

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This submission addresses enforcement issues of the Illegal Logging Bill, and is informed from existing and quickly emerging Australian DNA technology.

DNA technology applied to the timber trade:

- Minimises the burden of proof for industry
- Presents a realistic enforcement tool for Govt. agencies
- Should be considered now to future proof the legislation

## Our Perspective

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Double Helix Tracking Technologies Pte Ltd (DoubleHelix) is an international company that supports legal timber supply chains and forest governance globally through the application of cutting edge genetics.

Our Chief Scientific Officer, Andrew Lowe, is also Professor of Plant Conservation Biology and Director of the Australian Centre for Evolutionary Biology and Biodiversity at the University of Adelaide. We are headquartered in Singapore and are opening an office in Australia in the first quarter of 2012.

We are signatories to the Common Platform and we have in depth and first-hand knowledge of the Lacey Act, European Timber Trade Regulation, Indonesia's SVLK and the FLEGT process.

*Australian DNA Technology* makes it possible to identify species and geographic location of timber products; independently verifying claims and preventing illegal logs being laundered into legitimate supply chains.

Australian timber importers have been using our technology and legality standard services since 2007. In fact Australian businesses were the first in the world to adopt DNA technology as a highly reliable and low cost solution.

Today it is increasingly used in many parts of the world.

## State of DNA technology for timber legality

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There are three main approaches that DNA can be used to answer questions about the validity of a supply chain, origin of timber or nature of a species, they are summarised below.

Scientific approach	Description	Examples of use
Population genetics	Study of genetic variation of a species across distance based on four evolutionary processes: natural selection, genetic drift, mutation and gene flow.	<ul style="list-style-type: none"> <li>• Was this timber harvested from the declared country or region?</li> <li>• Does this timber come from a conservation area?</li> <li>• Does this timber come from natural forest or a plantation?</li> </ul>
DNA fingerprinting	A way of identifying a specific individual of the same species. Most commonly used to identify paternity and for identifying criminals.	<ul style="list-style-type: none"> <li>• Does this product come from this log or stump (is the chain-of-custody intact)?</li> <li>• Has this log or lot been swapped with other trees of the same species (log laundering)?</li> </ul>
DNA barcoding	A taxonomic method that studies a relatively short portion of DNA to identify it as belonging to a particular species.	<ul style="list-style-type: none"> <li>• Is this timber of the declared species?</li> <li>• Is this timber a CITES listed species or not?</li> </ul>

A detailed Report made for the US Government in July 2011 that includes case studies is available for download here, as is an 8 minute video that introduces the subject in more detail.

<http://www.doublehelixtracking.com/company/report/>

## Inspections

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In the Bill considerable detail is given to the rights of inspectors to operate electronic equipment when carrying out inspections and to make copies of documents.

We recommend that the legislation should also provide that inspectors have a right to take small wood samples for DNA and other analysis:

- Independently verify species declarations
- Randomly spot check species and collect data on imports
- Only a small 5cm x 5cm piece around 3cm thick is required
- Demonstrates legislators recognise and are ready for the future
- Increasingly can be matched to genetic maps for verification of origin

## Declaration of species

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Scientific species name should be part of a declaration requirement.

Colloquial, or common, names vary greatly and can be manipulated to suit market demand or compliance requirements.

Species is currently misdeclared for numerous reasons including:

- Tax avoidance purposes in producer countries.
- To facilitate mixing species when insufficient sources are available.
- Lack of interest in any form of due diligence or enquiry into product origin.

Scientific species name is a requirement for Lacey Act, EUTR and as part of many procurement policies of timber importers and businesses around the world.

Declaration of species using the scientific name also provides Australian Customs Officials with effective criteria to test the declaration using independent third party scientific techniques.

It can therefore be seen as a reasonable minimum standard for due diligence.

## Traceability

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For the legislation to have a meaningful and positive effect on supply chains some form of traceability should be required.

The FLEGT Briefing Note No.7 Guideline for Independent Monitoring 2007 states:

*All certification and legality systems, whether mandatory or voluntary, must have a mechanism to track timber from the forest source to export. Such systems are designed to exclude timber from unknown or illegal sources, as well as enable independent monitoring to provide assurance to all interested parties that the system is working as planned and maintain its credibility.*

Without some form of traceability it is impossible to exclude illegal timber from entering the supply chain.

Consumers are also requiring higher standards of due diligence and traceability by suppliers. In November 2011 we were contacted by a home owner in Melbourne seeking a test to verify the country of origin for an oak floor supplied to her by a building contractor.

## Timber laundering

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In the Asia Pacific region the trafficking of timber involves corruption in a range of processes along the entire demand and supply chain including logging, trading, manufacturing, importing and consumption.

Transparency International argues that; "Building the capacity of customs officials is essential to ensure that they can play an efficient role in identifying timber laundering activities, including ensuring that personnel are well trained and can authenticate sources of timber and their accompanying documents."

## Certification schemes

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Certification schemes vary greatly in their standards and requirements and how they are applied by audit companies in different supply chains across the world.

Although holding some form of certification is often a positive step that represents a commitment to source from acceptable sources they do not necessarily represent proof of origin or legality in themselves.

For simplicity we shall look at three certification schemes.

### **Indonesian Timber Legality Verification System (SVLK)**

SVLK has been welcomed as a step in the right direction for Indonesia. The EU has signed a Voluntary Partnership Agreement with Indonesia and this should come into effect in 2012 if monitoring arrangements are finalised satisfactorily.

However it is widely accepted that it will not be until at least 2016 before the following key requirements for evaluating SVLK can be concluded:

- Establishing how much fraud there is in SVLK through EU Periodic Evaluation and Civil Society processes.
- Clear demonstration that the level of fraud is decreasing on a year by year basis and that SVLK is acting as an effective legal tool to reduce illegal logging and not a rubber stamp to legitimise Indonesian exports whilst the status quo of forest practices remains.

SVLK is still very much in its early stages and does not yet represent that illegal timber is excluded from a supply chain.

## **FSC and PEFC**

FSC and PEFC are well recognised international brands representing sustainable forest management. Their Standards predate international legislation and market demand for proof of legal origin of timber products.

As such both these standards are currently undergoing consultation and written revisions to adapt to Lacey Act and EUTR including examining DNA and other technologies to strengthen Chain-of-Custody requirements.

In June 2011 the Forest Stewardship Council's Executive Director, André de Freitas referred to traceability as the biggest priority for FSC for the next five years.

*At the same meeting Phil Guillery, FSC System Integrity Director stated; "Currently, certificate holders are responsible for each node in the supply chain, but we have no system to trace material through the whole supply chain. And we are drawing closer to a tipping point: more questions of fraud are going to occur – this is an inevitable consequence of having grown from a handful of certificates to thousands".*

Something similar could easily be said for PEFC.

Both standards are likely to go through some significant changes in the coming years that will represent significant improvements in their ability to track products along supply lines.

## **Certification**

As certification conveys a premium value onto a product, and the trade suffers from corruption and timber laundering, there is in fact an incentive to forge successful certification brands.

The United States Department of Justice does not recognise that holding a certificate claim necessarily represents "Due Care".

Customs officials will require a way to independently verify certificate claims.

## Genetic Checkpoints

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Legislation without the opportunity for reasonable compliance and effective enforcement is fruitless.

Australia is playing a leading role in DNA barcoding of species, especially trees. Adelaide University hosted the fourth International Barcode of Life Conference in November 2011.

The technology development led by Professor Andrew Lowe is currently being deployed in the supply chains of European and US timber importer supply chains and being used to evaluate Chain-of-Custody veracity.

Each month 1,200m<sup>3</sup> of DNA verified timber is imported into Australia.

We recommend that the legislation is written with a view to current and future capabilities for affordable compliance and effective enforcement. The benefits of this will include:

- Future proof legislation.
- A stimulus for Australian technology innovation.
- Demonstration of best practice to legislators in USA and EU.
- A clear message to overseas timber launderers and criminal organisations.

We recommend a pilot is adopted for one species of at risk timber from Indonesia as this will:

- Have a limited impact on Australian importers as there are easy compliance options to hand.
- Provide Australian customs officials with a practical tool that can be expanded over time.
- Would be very quick and very cheap to put into place.



## Contact us

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We are available to attend a Senate Committee meeting should you want a briefing or to ask any questions on issues raised in this submission.

Further information is also available online:

<http://www.doublehelixtracking.com>

<http://www.naturesbarcode.com>

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